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# INSURANCE INSTITUTE FOR HIGHWAY SAFETY

## NEWS RELEASE

October 11, 2007

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VNR: Thurs. 10/11/2007 10:30-11 am EDT (C) AMC 3/Trans. 3 (dl3760H)  
repeat 1:30-2 pm EDT (C) AMC 3/Trans. 3 (dl3760H); dedicated

### **NEW CRASH TESTS: SOME MIDSIZE SUVs PERFORM WORSE THAN MANY CARS IN SIDE TEST**

ARLINGTON, VA — Results of crash tests for six SUVs show frontal crash protection has improved. However, the tests reveal significant differences in how well SUVs protect people in serious side crashes. Among the worst performers in the side test are the Jeep Grand Cherokee and Chevrolet TrailBlazer, even though both are equipped with standard side airbags. The front and side tests recently were conducted by the Insurance Institute for Highway Safety to evaluate how well midsize SUVs protect people in the two most common kinds of serious crashes. Rear crash protection ratings for these models were released earlier this year.

Five of the six SUVs earn the top rating of good in the Institute's 40 mph frontal offset test. The Chevrolet TrailBlazer is the only one to earn an acceptable rating for frontal crash protection. Based on overall results of front, side, and rear tests, the TrailBlazer is the lowest rated current model midsize SUV tested by the Institute.

Performance varied considerably in the side test that replicates a 31 mph crash in which the striking vehicle is another SUV or pickup. Two Nissan SUVs, the Pathfinder and Xterra, are rated good for protection in side impacts, but only when they're equipped with optional side airbags. Without the option, these SUVs earn marginal ratings. The Toyota 4Runner equipped with standard side airbags is rated good, the Ford Explorer with standard side airbags earns an acceptable rating, and the Jeep Grand Cherokee and Chevrolet TrailBlazer, both with standard side airbags, are marginal.

"The performance of some of these models in the side test was surprising," says Institute senior vice president David Zuby. "SUVs should have an advantage in side crashes because the driver and passengers ride higher up than in cars. People often think they're safer in one of these vehicles, but many cars hold up better than some of these midsize SUVs in this test."

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**Two of the six SUVs have side airbags that don't protect the torso:** The Grand Cherokee and TrailBlazer are equipped with standard curtain-style side airbags designed to protect the heads of occupants in front and rear seats. But unlike most cars with side airbags, these two SUVs don't have additional sets of airbags to protect front-seat occupants' chests and abdomens.

"Nearly every car with side airbags has both head and torso airbags, but the Grand Cherokee and TrailBlazer have head protection only," Zubby points out. "Head protection is rated good in both vehicles, but the lack of chest protection and weak side structures that allowed a lot of intrusion contributed to high forces on the driver dummies' chests and abdomens."

The side structures of the 4Runner, Pathfinder, and Xterra performed better, allowing less intrusion into the occupant compartment. The standard side airbags in the 4Runner and the optional ones in the Pathfinder and Xterra include torso as well as head protection. Torso and head curtain airbags also are standard in the Explorer. While head protection was good in the Explorer, intrusion into the occupant compartment contributed to the possibility that someone in a real-world crash of similar severity would sustain a broken pelvis.

Standard side airbags are becoming more common across the vehicle fleet, but they're standard in more cars than in SUVs. Among 2007 models, 71 percent of the cars have standard side airbags that protect both the head and chest while such protection is standard in only 48 percent of SUVs.

**SUVs improve in frontal crash performance:** Some midsize SUVs haven't been good performers in past frontal tests conducted by the Institute. Four of the models in this group improved compared with their predecessor designs. The 1997-04 model Pathfinder, 1999-04 Grand Cherokee, and 2002-04 TrailBlazer were rated marginal for frontal crash protection. The 2000-04 Xterra was rated acceptable. All four of the new versions improve to good except the TrailBlazer, which improves to acceptable.

SUVs are safer now than they were even just a few years ago, especially with the addition of electronic stability control, which is standard on all the models in

this group. Still none of the six SUVs earned the Institute's *TOP SAFETY PICK* designation because of low ratings for protection in side and/or rear impacts.

"If you're in the market for a midsize SUV, there's no reason to buy one with mediocre crash test ratings," Zuby says. "Vehicles like the Ford Edge and Taurus X, Honda Pilot, Hyundai Santa Fe, and Subaru Tribeca would be safer choices. They afford good protection in front and side crashes. Plus they have good seat/head restraint designs to protect you in rear-end crashes. These five models, tested earlier this year, are our highest rated midsize SUVs, earning the *TOP SAFETY PICK* award. If you're willing to spend a little more, the Acura MDX and RDX, Lincoln MKX, Mercedes M class, and Volvo XC90 also are *TOP SAFETY PICK* choices."

**How vehicles are evaluated:** The Institute's frontal crashworthiness evaluations are based on results of 40 mph frontal offset crash tests. Each vehicle's overall evaluation is based on measurements of intrusion into the occupant compartment, injury measures recorded on a Hybrid III dummy in the driver seat, and analysis of slow-motion film to assess how well the restraint system controlled dummy movement during the test.

Side evaluations are based on performance in a crash test in which the side of a vehicle is struck by a barrier moving at 31 mph. The barrier represents the front end of a pick-up or SUV. Ratings reflect injury measures recorded on two instrumented SID-IIIs dummies, assessment of head protection countermeasures, and the vehicle's structural performance during the impact. Injury measures obtained from the two dummies, one in the driver seat and the other in the back seat behind the driver, are used to determine the likelihood that a driver and/or passenger in a similar real-world crash would sustain serious injury to various parts of the body. The movements and contacts of the dummies' heads during the test also are evaluated. Structural performance is based on measurements indicating the amount of B-pillar intrusion into the occupant compartment.

**End 3-page news release on crashworthiness ratings of midsize SUVs  
Attachment: front, side, & rear crashworthiness evaluations of SUVs  
VNR on 10/11/2007 at 10:30-11 am EDT (C) AMC 3/Trans. 3 (dI3760H)  
repeat at 1:30-2 pm EDT (C) AMC 3/Trans. 3 (dI3760H); dedicated**

**For more information go to [www.iihs.org](http://www.iihs.org)**

ATTACHMENT 1: CRASHWORTHINESS EVALUATIONS, p.1 of 1

Midsize SUVs	FRONT EVALUATION	SIDE EVALUATION	REAR CRASH PROTECTION	ELECTRONIC STABILITY CONTROL
<b>NISSAN PATHFINDER</b> WITH OPTIONAL HEAD CURTAIN AIRBAGS IN ALL ROWS & FRONT TORSO AIRBAGS front, side, and rear: 2005-08 models	<b>G</b>	<b>G</b>	<b>M</b>	standard
<b>TOYOTA 4RUNNER</b> WITH HEAD CURTAIN AIRBAGS IN 1ST AND 2ND ROWS & FRONT TORSO AIRBAGS (OPTIONAL IN 2003-07 MODELS) front and rear: 2003-08 models side: 2006-08 models	<b>G</b>	<b>G</b>	<b>P</b>	standard
<b>NISSAN XTERRA</b> WITH OPTIONAL FRONT AND REAR HEAD CURTAIN AIRBAGS & FRONT TORSO AIRBAGS front, side, and rear: 2005-08 models	<b>G</b>	<b>G</b>	<b>P</b>	standard optional on 2005 models
<b>FORD EXPLORER</b> <b>MERCURY MOUNTAINEER</b> WITH HEAD CURTAIN AIRBAGS IN 1ST AND 2ND ROWS & FRONT TORSO AIRBAGS (CURTAIN AIRBAGS OPTIONAL IN 2006-07 EXPLORER & 2006 MOUNTAINEER MODELS) front, side, and rear: 2006-08 models	<b>G</b>	<b>A</b>	<b>P</b>	standard
<b>JEEP GRAND CHEROKEE</b> WITH FRONT AND REAR HEAD CURTAIN AIRBAGS (OPTIONAL IN 2005-06 MODELS) front, side, and rear: 2005-08 models	<b>G</b>	<b>M</b>	<b>G</b>	standard optional on 2005 models
<b>NISSAN PATHFINDER</b> WITHOUT OPTIONAL SIDE AIRBAGS front, side, and rear: 2005-08 models	<b>G</b>	<b>M</b>	<b>M</b>	standard
<b>NISSAN XTERRA</b> WITHOUT OPTIONAL SIDE AIRBAGS front, side, and rear: 2005-08 models	<b>G</b>	<b>M</b>	<b>P</b>	standard optional on 2005 models
<b>CHEVROLET TRAILBLAZER</b> <b>GMC ENVOY</b> <b>ISUZU ASCENDER</b> <b>SAAB 9-7X</b> WITH FRONT AND REAR HEAD CURTAIN AIRBAGS (OPTIONAL IN 2005-07 MODELS EXCEPT STANDARD IN SAAB 9-7X) front, side, and rear: 2005-08 models	<b>A</b>	<b>M</b>	<b>P</b>	standard not available on 2005s exc. Saab 9-7X



**ORDER OF VEHICLES REFLECTS RATINGS IN FRONT, SIDE, AND REAR TESTS FOR DETAILED CRASHWORTHINESS EVALUATIONS, GO TO WWW.IIHS.ORG**

**FRONTAL RATINGS** are based on performance in a 40 mph frontal offset crash test into a deformable barrier. **CAUTION:** Frontal ratings cannot be compared across vehicle type and weight categories because the kinetic energy involved in the frontal test depends on the speed and weight of the test vehicle, and the crash is more severe for heavier vehicles. Given equivalent frontal ratings for heavier and lighter vehicles, the heavier vehicle typically will offer better protection in real-world crashes.

**SIDE RATINGS** are based on performance in a crash test in which the side of the vehicle is struck by a moving deformable barrier with a front end that represents the front of a typical SUV or pickup. The moving barrier strikes the vehicle at 31 mph in a perpendicular impact. **NOTE:** Side ratings can be compared across vehicle type and weight categories while frontal ratings cannot.

**REAR CRASH PROTECTION RATINGS** are based on a two-step evaluation. In the first step restraint geometry is rated. Seats with good or acceptable geometric ratings then are subjected to a dynamic test. Seats with head restraints rated marginal or poor, based on geometry, aren't tested because they cannot protect taller occupants.