

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

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HEAD RESTRAINTS IN CARS, PICKUPS, AND SUVs IMPROVE; MORE THAN HALF NOW ARE RATED GOOD OR ACCEPTABLE

ARLINGTON, VA — The latest ratings of head restraints in more than 200 passenger vehicles indicate these devices are getting better. Twenty-nine percent of the vehicles, all 2001 models, have head restraints rated good, and another 24 percent have acceptable

head restraints (see attached ratings). This is the first time that more than half of all new passenger vehicles offer restraints rated good or acceptable by the Insurance Institute for Highway Safety.

Head restraints that meet positioning requirements can reduce the risk of neck injury in rear-end crashes. Such injuries cost at least \$7 billion per year.

HEAD RESTRAINT IMPROVEMENTS

	Percentage of head restraints rated:			
	<u>Good</u>	<u>Acceptable</u>	<u>Marginal</u>	<u>Poor</u>
1995	3	4	11	82
1997	4	8	18	70
1999	10	22	28	40
2001	29	24	24	22

The Institute rates most head restraint designs good, acceptable, marginal, or poor based on how a restraint meets height and backset requirements for an average male. The top of a restraint should be at least as high as the top of an occupant's ears. The backset, or distance between the back of an occupant's head and the front of the head restraint, should be as small as possible.

The Institute has rated head restraints in 1995, 1997, 1999, and 2001 models. There's a dramatic comparison among these results. It was almost impossible to find a good head restraint in a 1995 model. Those in just five cars were rated good, and three of the five cars were Volvo models. By the 1997 model year, good and acceptable head re-

— MORE —

straints were easier to find but still in fewer than one-fourth of the cars in which Institute researchers measured head restraint geometry. Among 1999 models, fewer than a third of the restraints measured were rated good or acceptable.

"More and more automakers are finally getting the message," says Institute chief operating officer Adrian Lund. "In 1995, unless you were short it was hard to find a car with a head restraint high enough to provide protection. But now, even taller people have a good chance of getting head restraints that will protect them. This marks a sea change."

The restraints in some vehicles are active. That is, they're designed to move into position during a rear impact. Such head restraints are rated good by both the Institute and the Research Council for Automobile Repairs, a consortium of international research centers funded by automobile insurers. The automatic good ratings will continue until comparative dynamic tests for whiplash protection are available. The Institute and others are planning such tests.

"Until then, we're crediting the advanced systems and giving them good ratings. We'll do this until a dynamic test protocol is in place," Lund says. "Our testing to date indicates such ratings are warranted."

Saab's active restraint and General Motors' "catcher's mitt" design both feature a head restraint that moves up and forward as an occupant's torso loads the seatback in a rear-end collision. All Saabs since the 1999 model year have such restraints, as do current Buick LeSabre, Pontiac Bonneville, and Oldsmobile Aurora models. Nissan offers a similar active head restraint design in its Maxima and Infiniti I30, Q45, and QX4 models.

"It's encouraging to track all the manufacturer activity aimed at improving head restraints," Lund says. "Generally speaking, restraints are getting higher and closer to the head, and many more adjustable restraints now come with locks to keep them in position."

**End 2-page release on head restraint design improvements
2-page attachment: ratings of head restraints in 2001 models**

Internet: www.highwaysafety.org

2001 PASSENGER CARS

Acura CL/TL/RL	P	Dodge Grand Caravan	G/A	Mazda Miata	A/M
Acura Integra	A	Dodge Intrepid	G	Mazda Millenia	M
Audi A4/S4	G/A	Dodge Neon	G/A	Mazda MPV	M/P
Audi A6	G	Dodge Stratus	G/P	Mazda Protege	A/M
Audi A8	A	Ford Crown Victoria	P	Mercedes C class	G
Audi Allroad Quattro	G	Ford Escort ZX2	P	Mercedes CLK class	M
Audi TT Roadster Quattro	G	Ford Focus	G	Mercedes E class	G/A
BMW 3 series	A	Ford Mustang	P	Mercedes S class	G
BMW 5 series	G	Ford Taurus	G/A	Mercedes SL class	A
BMW 7 series	G	Ford Windstar	G/A	Mercedes SLK class	M
BMW M3	M	GMC Safari	M	Mercury Cougar	M
BMW Z3 Roadster	A	Honda Accord	A/M	Mercury Grand Marquis	P
Buick Century	M/P	Honda Civic	G/M	Mercury Sable	G
Buick LeSabre	G ✓	Honda Insight	P	Mercury Villager	P
Buick Park Avenue	P	Honda Odyssey	M	Mitsubishi Diamante	P
Buick Regal	P	Honda Prelude	M	Mitsubishi Eclipse	M/P
Cadillac Catera	A	Honda S2000	A	Mitsubishi Galant	M
Cadillac DeVille	M/P	Hyundai Accent	A	Mitsubishi Mirage	M
Cadillac Eldorado	P	Hyundai Elantra	G/A	Nissan Altima	P
Cadillac Seville	P	Hyundai Sonata	A	Nissan Maxima	G ✓
Chevrolet Astro	M	Hyundai Tiburon	A	Nissan Quest	P
Chevrolet Camaro	P	Hyundai XG300	M	Nissan Sentra	M
Chevrolet Cavalier	P	Infiniti G20	P	Oldsmobile Alero	M
Chevrolet Corvette	A/M	Infiniti I30	G ✓	Oldsmobile Aurora	G ✓
Chevrolet Impala	M/P	Infiniti Q45	G ✓	Oldsmobile Intrigue	P
Chevrolet Malibu	M/P	Jaguar S type	A	Oldsmobile Silhouette	A
Chevrolet Monte Carlo	M	Jaguar VDP/XJR	A	Pontiac Bonneville	G ✓
Chevrolet Prizm	P	Jaguar XK8	M	Pontiac Firebird	P
Chevrolet Venture	A	Kia Optima	A	Pontiac Grand Am	A
Chrysler 300M	M	Kia Rio	A	Pontiac Grand Prix	M
Chrysler Concorde	P	Kia Sephia	M	Pontiac Montana	G/A
Chrysler LHS	A	Kia Spectra	G	Pontiac Sunfire	P
Chrysler Prowler	A	Lexus ES 300	A	Porsche 911	A
Chrysler PT Cruiser	G	Lexus GS 300	G	Porsche Boxster	A
Chrysler Sebring	M/P	Lexus IS 300	G	Saab 9-3	G ✓
Chrysler Town & Country	A/P	Lexus LS 430	G	Saab 9-5	G ✓
Chrysler Voyager	M/P	Lincoln Continental	M	Saturn LS	P
Daewoo Lanos	M	Lincoln LS	M	Saturn LW	P
Daewoo Leganza	A	Lincoln Town Car	P		
Daewoo Nubira	A	Mazda 626	P		

ratings continue

2001 PASSENGER CARS (continued)

Saturn SC	P
Saturn SL	P
Subaru Impreza	M
Subaru Legacy/Outback	A
Suzuki Esteem	M
Toyota Avalon	M
Toyota Camry	M
Toyota Camry Solara	A
Toyota Celica	P
Toyota Corolla	M
Toyota Echo	G
Toyota MR2	G
Toyota Prius	G
Toyota Sienna	M
Volkswagen Golf	G/P
Volkswagen Jetta	A/M
Volkswagen New Beetle	G
Volkswagen Passat	M
Volvo C70	G
Volvo S40/V40	G
Volvo S60	G
Volvo S80	G
Volvo V70	G

2001 UTILITY VEHICLES

Acura MDX	M
BMW X5	A
Chevrolet Blazer	A/P
Chevrolet Suburban	P
Chevrolet Tahoe	P
Chevrolet Tracker	G/A
Dodge Durango	P
Ford Escape	P
Ford Excursion	P
Ford Expedition	M
Ford Explorer	P

Ford Explorer Sport Trac	M/P
GMC Jimmy	G/P
GMC Yukon	P
GMC Yukon XL	A/M
Honda CR-V	A/P
Honda Passport	P
Hyundai Santa Fe	G/A
Infiniti QX4	G ✓
Isuzu Rodeo	M/P
Isuzu Rodeo Sport	A
Isuzu Trooper	A
Jeep Cherokee	P
Jeep Grand Cherokee	P
Jeep Wrangler	M
Kia Sportage	M
Land Rover Discovery Series II	M
Land Rover Range Rover	M
Lexus LX 470	G
Lexus RX 300	G
Lincoln Navigator	P
Mazda Tribute	P
Mercedes M class	A
Mercury Mountaineer	P
Mitsubishi Montero	A
Mitsubishi Montero Sport	M
Nissan Pathfinder	M/P
Nissan Xterra	G
Oldsmobile Bravada	P
Pontiac Aztek	M
Subaru Forester	A/M
Suzuki Grand Vitara	A
Suzuki Grand Vitara XL-7	A
Toyota 4Runner	M/P
Toyota Highlander	G
Toyota Land Cruiser	P
Toyota RAV4	G
Toyota Sequoia	G

2001 PICKUP TRUCKS

Chevrolet S10/T10	G/P
Chevrolet Silverado 1500	M/P
Dodge Dakota	A/P
Dodge Ram 1500	P
Dodge Ram 2500	P
Ford F-150	A/P
Ford F-250	M
Ford Ranger	M/P
GMC Sierra 1500	A/P
GMC Sonoma	G/A
Mazda B series	P
Nissan Frontier	A
Toyota Tacoma	P
Toyota Tundra	G

KEY:

Good	G
Acceptable	A
Marginal	M
Poor	P

Split rating: depends on seat type
✓ Active head restraint moves into position high and close to an occupant's head in the event of a rear impact. This design automatically earns a good rating.