

Ford to put air bags into back seat belts of SUV (w/ Video)

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Ford's inflatable seat belts are designed for the rear seat. Image credit: Ford

(AP) -- Air bags have long been mounted in the steering wheel, dashboard and sides of vehicles. Now, they're in the seat belts. Ford Motor Co. plans to introduce seat belt-mounted air bags in the back seat of the 2011 Ford Explorer sport utility vehicle, which will hit the market next fall. Ford says it's the first automaker to mass produce the technology.

The belts have a cylindrical air bag that stretches from the buckle to the shoulder and fits inside a pocket sewn into the belt. The car sends a signal that releases the bag, which inflates more gently than a front air bag, so it's safer for children.

Srini Sundararajan, the Ford engineer who was chiefly responsible for developing the device, says the wider belts and bags help distribute [crash](#) forces across the occupant's chest, so there's less chance of serious injury. It also supports the head and neck.

"The top two lifesaving devices today are the seat belt and the air bag. This combines them into one great feature," Sundararajan said.

Clarence Ditlow, head of the nonprofit Center for Auto Safety, says the belts are particularly effective at protecting the elderly, who are more frail.

"You often end up with broken ribs" during a crash with a conventional seat belt, Ditlow said.

Ford has been working on the technology for a decade and had to overcome numerous challenges bringing it to market.

Front air bags are powered by a device that generates hot gas. They deploy very quickly because they need to cover a greater distance before they reach the driver or passenger. Seat belt air bags don't have that distance to cover, so they can deploy more gently, using cold gas technology, although Srini said they're still fully deployed in a tenth of a second.

Ford also did a significant amount of testing to make sure the bags would protect children, even if they're sleeping and their heads are drooping. The belt also works with booster seats.

Sue Cischke, Ford's group vice president for sustainability, environmental and safety engineering, wouldn't say how much the belts with air bags will cost, but she did say the technology is expensive. They

will be available as an option at first, since some drivers — particularly those without children — may not feel they need them.

"With any new safety technology, you have to do a lot to educate the consumer," she said. "We're not sure what people will value with this."

Cischke said the Explorer was chosen for the new seat belts because it's popular with families and has also been a platform for other safety introductions, such as side-curtain air bags and stability control. Cischke said the price could come down substantially if Ford decides to put the [seat belts](#) on other vehicles.

Edward DeSmet, a technical seat belt specialist at Ford, said test subjects found the padded belts even more comfortable than regular ones. He hopes that leads more people to use them. U.S. seat belt usage in back seats is still at a dismal 60 percent, compared with 83 percent in the vehicle as a whole, DeSmet said.

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