Deadly decision: Obese drivers are far less likely to buckle up

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"The more obese the driver, the less likely that seatbelts were used," says Dietrich Jehle, MD, professor of emergency medicine at UB.

(Phys.org) -- Obese drivers are far less likely to wear seatbelts than are drivers of normal weight, a new University at Buffalo study has found, a behavior that puts them at greater risk of severe injury or death during motor vehicle crashes.

The UB study found that normal weight drivers are 67 percent more likely to wear a seatbelt than morbidly obese drivers. Drivers were

considered overweight or obese if they had a BMI (body mass index) of 25 or more, according to the World Health Organization definition of obesity, with 25-30 defined as overweight, 30-35 slightly obese, 35-40 moderately obese and 40 morbidly obese.

"It's clear that not wearing a seatbelt is associated with a higher chance of death," says lead author Dietrich Jehle, MD, professor of emergency medicine at the UB School of Medicine and Biomedical Sciences and associate medical director at Erie County Medical Center. "We hypothesized that obese drivers were less likely to wear seatbelts than their normal weight counterparts. Obese drivers may find it more difficult to buckle up a standard seatbelt."

The finding comes from the same UB researchers who in 2010 identified obesity as a risk factor for death in a study of 155,584 drivers in severe auto crashes. In that study, they found that morbidly obese individuals are 56 percent more likely to die in a crash than individuals of normal weight.

The results of the current study, "Obesity and Seatbelt Use," will be presented May 10 in Chicago at the annual meeting of the Society for Academic Emergency Medicine.

The UB researchers based their study on data in the national Fatality Analysis Reporting System (FARS) of the National Highway Traffic Safety Administration, which tracks motor vehicle crashes and numerous variables about the collisions, some of which are related to seatbelt use. They looked at 336,913 drivers who were in a severe crash where a death occurred and controlled for confounding variables.

"We found that the relationship between the amount of obesity and seatbelt use was linear; the more obese the driver, the less likely that seatbelts were used," says Jehle.

Not buckling up is, of course, a deadly decision, says Jehle: it delivers more force to the body much more quickly while also increasing the chances of being thrown from the car.

"The question is: Is there something we can do to cars to make them safer for the obese?" asks Jehle. "How can we make it more likely for people, including the overweight or obese, to wear seatbelts?" He adds that these findings also raise questions about how best to conduct crash-tests of cars. He notes that the dummies that are used in crash-tests are not obese.

"We need to do something, since one-third of the U.S. population is overweight (not obese) and one-third is considered obese," Jehle says. "But on the bright side, cars are much safer now and traffic fatalities in the U.S. have been declining for many years."

He says that that decline is a result of multiple safety initiatives, including safety glass, better seatbelts, divided highways, less drunk driving, airbags, stability control systems, sensors that alert drivers when they stray from a lane and drowsy driver alert systems.

Provided by University at Buffalo