

Mandatory alcohol testing for truck and bus drivers reduces alcohol involvement in fatal crashes

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Mandatory alcohol testing programs for truck and bus drivers have contributed to a significant reduction in alcohol involvement in fatal crashes, according to a new study by researchers at the Mailman School of Public Health and the Johns Hopkins Bloomberg School of Public Health.

Based on a study sample of nearly 70,000 motor carrier (heavy trucks and buses) drivers and over 83,000 non-motor-carrier (car) drivers, the estimated net effect attributed to the mandatory alcohol testing programs for drivers of heavy trucks and buses was a 23% reduced risk of alcohol involvement in fatal crashes. This is the first study to comprehensively evaluate the Omnibus Transportation Employee Testing Act of 1991, which made alcohol testing mandatory for transportation employees with safety sensitive functions. Findings from the study are published online in the [American Journal of Epidemiology](#).

In the U.S., there are approximately 4,000 fatal crashes involving heavy trucks and buses each year, and nearly 80% of these fatal crashes are collisions between a motor carrier and a passenger car. About 3% of the motor carrier drivers and 27% of non-motor-carrier drivers in these fatal crashes are under the influence of alcohol.

"The mandatory alcohol testing programs for transportation employees with safety-sensitive functions are a major policy intervention," says

Guohua Li, MD, DrPH, professor of Epidemiology at the Mailman School of Public Health and professor of Anesthesiological Sciences at Columbia College of Physicians and Surgeons, and senior author.

"However, this policy remains a controversial one, because of legal and ethical concerns and little empirical data about its safety benefit. Our study provides compelling evidence that implementation of the mandatory alcohol testing programs has significantly reduced alcohol involvement in fatal motor carrier crashes."

The authors also report that the estimated safety benefit of the mandatory alcohol testing programs is consistent across age groups and between sexes. Moreover, implementation of these programs has reduced alcohol involvement by motor carrier drivers in daytime and nighttime fatal crashes to a similar degree.

Free cross-border trade by motor carriers is a major component of the North America Free Trade Agreement but has been hindered by issues around safety. One of the differences in regulations is mandatory drug and alcohol testing, which is required of drivers in the U.S. but not in Canada and Mexico. According to Mailman School of Public Health's Joanne Brady, SM, lead author, "results from this new study suggest that implementation of the mandatory alcohol testing programs in the U.S. has substantially reduced alcohol-impaired driving by motor carrier drivers and that Canada and Mexico may improve their safety records by adopting this policy."

Source: The Earth Institute at Columbia University ([news](#) : [web](#))

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