Infrequent drinkers are not immune from being injured

Emeryville, CA: Even one intoxication event can increase the risk of injury, a new study from the Alcohol Research Group, a project of the Public Health institute, found. Injury risk peaked at one hour of a blood alcohol concentration (BAC) of 0.05 or higher and remained at about the same level for more frequent heavy drinkers. Many counties use a BAC of 0.05 or more to determine drinking driving offenses and Utah will become the first US state to set this limit in 2019.

This is the first study to use BAC to measure hours of alcohol exposure when analyzing injury risk. Most studies define exposure as having consumed five or more drinks.

"Using a BAC of 0.05 or higher as a measure of intoxication is more precise and accurate than counting drinks since each person's tolerance for alcohol varies depending on a number of factors, including weight and gender," Senior Scientist Cheryl Cherpitel and lead author said. "It also allows us to determine risk for those who consume less than five drinks."

Other results showed that risk of injury increased for spirit drinkers who consumed an average daily volume of one drink, where there was no association for those consuming wine or beer. When evaluating group-specific effects, the risk of injury increased for men but not for women.

These results highlight the riskiness of intoxication for infrequent heavy drinkers and suggest that more frequent heavy drinkers, while still at an elevated risk for injury, mitigate their risk through tolerance, expectations, and avoiding risky activities while intoxicated. Risk reduction strategies for infrequent heavy drinkers should focus on similar mitigation techniques, including education on how to recognize and be aware of occasions when excessive drinking is more likely to occur, such as at parties, weddings, sporting events, and festivals.

Finally, anyone who is in a situation where people are drinking in excess should try to warn or aid inexperienced drinkers who may be less aware of their risky behavior.

The study analyzed data from over 29,500 respondents between 2000 and 2015 using four cycles of the U.S. National Alcohol Survey.

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Cherpitel, C.J., Ye, Y., Kerr, W.C. (2017). Risk of past year injury related to hours of exposure to an elevated BAC and average monthly alcohol volume: data from four National Alcohol Surveys (200-2015). Alcoholism: Clinical and Experimental Research: http://onlinelibrary.wiley.com/doi/10.1111/acer.13561/abstract

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