

# Just 2 drinks slow reactions in older people

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Hegeman et al., *BMC Research Notes*

This image shows the experimental setup. Credit: Hegeman et al., *BMC Research Notes*

Blood alcohol levels below the current legal limit for driving have a significant negative effect on a person's dexterity. Researchers writing in the open access journal *BMC Research Notes* found that just two single vodka and orange drinks were enough to make senior volunteers struggle at an obstacle avoidance test while walking.

Judith Hegeman worked with a team of researchers from Sint Maartenskliniek, Nijmegen, The Netherlands, to carry out the tests in 13 healthy men and women (average age 61.5yrs or 62yrs). She said, "The results clearly show that even with low blood [alcohol](#) concentrations, reactions to sudden gait perturbations are seriously affected. After

ingestion of 2 [alcoholic drinks](#), obstacles were hit twice as often, response times were delayed and response amplitudes were reduced. These changes were most obvious in situations with little available [response time](#)".

To carry out the test, the volunteers first started to walk on a treadmill. Once they had attained a steady walking pace, a thin wooden block was placed at the far end of the belt and allowed to move towards the volunteer. Hegeman and her colleagues measured the effects of alcohol on how capable the subjects were of stepping over this obstacle. She said, "We found that alcohol levels, considered to be safe for driving, seriously hamper the ability to successfully avoid sudden obstacles in the travel path. A possible limitation of this study is the relatively small sample size, however even with the small number, it yielded an unequivocal outcome".

**More information:** Even low alcohol concentrations affect obstacle avoidance reactions in healthy senior individuals, Judith Hegeman, Vivian Weerdesteyn, Bart JF van den Bemt, Bart Nienhuis, Jacques van Limbeek and Jacques Duysens, *BMC Research Notes* (in press), [www.biomedcentral.com/bmcresnotes/](http://www.biomedcentral.com/bmcresnotes/)

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