

Stricter speed enforcement can impair driver safety

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Credit: University of Western Australia

New research from The University of Western Australia has found strictly enforced speed limits could have a detrimental impact on road safety.

Researchers used a driving simulator to test whether lowering speed enforcement thresholds would impact on a driver's mental and visual abilities. Eighty-four young adult participants drove under conditions where they could be fined for travelling one, six, or 11 km/h over a 50 km/h speed limit.

A peripheral detection task was used to measure drivers' mental and visual workload. They also filled out a questionnaire which asked how

difficult or demanding they found the experience of driving under the different enforcement conditions.

Stricter speed limit enforcement led to drivers rating the experience as more demanding and had a significant negative impact on peripheral vision, or the ability to detect objects outside the driver's immediate line of sight.

One of the authors of the study, Dr Vanessa Bowden from UWA's School of Psychology, said past studies had established that drivers have a limited pool of mental and visual resources and research showed clear decrements when these resources are divided between tasks.

"Similar effects have been shown for individuals who drive while talking on a phone or operating their car's stereo," Dr Bowden said.

"Our overall finding was that stricter speed enforcement may impair a driver's ability to detect hazards, especially those on the side of the road, because drivers are dedicating more attention to monitoring their speed.

"In reality the effects of strictly enforced speed limits could be even greater than in our study, with real-world drivers experiencing greater pressures to drive at or above the posted speed limit."

The study was supported by the Neurotrauma Research Program at the Harry Perkins Institute of Medical Research.

The researchers plan to continue this line of study to see whether drivers are actually poorer at responding to hazards under conditions where [speed limits](#) are strictly enforced.

More information: Vanessa K. Bowden et al. Lowering thresholds for speed limit enforcement impairs peripheral object detection and

increases driver subjective workload, *Accident Analysis & Prevention* (2017). [DOI: 10.1016/j.aap.2016.09.029](https://doi.org/10.1016/j.aap.2016.09.029)

Provided by University of Western Australia

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