

Study prompts safety precautions for cyclists

27 July 2012



Interviews with cyclists hospitalised following road crashes have reinforced the importance of measures such as wearing helmets and bike lights, and better interaction between all road users.

The Monash Alfred Cycle Crash Study (MACCS), a [collaboration](#) between Monash University, Alfred Health, VicRoads, and Bayside and Kingston City councils, examined the causes and outcomes of crashes involving 158 cyclists presenting to the Emergency Departments of Sandringham Hospital and the Alfred over a 12 month period.

Comprehensive interviews with participating cyclists and an in-depth analysis of the causes and injury outcomes were conducted to help inform more effective crash counter-measures.

Cyclists answered a range of questions covering all aspects of their cycling experience including health and demographic details, distance ridden, bicycle, clothing, road conditions and events leading up to and during the crash. Their injuries were also recorded.

Lead researcher and emergency physician, Dr.

Paul Biegler, of both Monash University where he is a Research Fellow in Human Bioethics, and Alfred Health, said the results highlighted a number of key aspects contributing to crashes.

"We found that the use of bicycle lights was protective, independent of time of day, with cyclists failing to use lights having a threefold increased likelihood of serious injury, compared to cyclists using lights," Dr. Biegler said.

"This suggests that greater cyclist visibility allows those involved in a collision more time to take avoidance action, reducing impact severity."

Nearly half of cyclists sustained impact to the head during crashes, evidenced by damage to their [helmets](#). Further, chances of head injury increased threefold with speeds above 20 km per hour, and increased fivefold with speeds above 30 km per hour.

"These findings reinforce the benefits of helmet wearing, especially for cyclists travelling at speed," Dr. Biegler said.

One third of the crashes involved collisions with cars and just under half of those cars were parked.

"Crashes into the open door of a parked car, or 'dooring' accounted for six per cent of all crashes," Dr. Biegler said.

"Encouraging safe interactions between [cyclists](#) and vehicles through education, road design, and traffic regulations is of vital importance."

MACCS did not include third-party interviews, necessarily excluding fatal [crashes](#). Dr Biegler said the study, conducted as a pilot, had contributed important insights, but that further research was needed.

More information: A full copy of the report is

available from the [Monash University Injury Research Institute website](#).

Provided by Monash University

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