

# Safety on two wheels revealed

April 19 2012

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Ross Blackman

Moped riders crash more frequently, and motorcyclists are more than three times as likely to die in accidents, a Queensland University of Technology (QUT) road safety researcher has found.

PhD researcher Ross Blackman at QUT's Centre for Accident Research and Road Safety - Queensland (CARRS-Q) has studied the safety of motorized two-wheelers, comparing the safety of motorbikes, scooters and mopeds, which has never been done before.

He said mopeds were often referred to as scooters, but differed from their larger cousins in engine size and maximum speed. Mopeds were limited to 50cc engines and a maximum speed of 50 kph, and could be ridden on Queensland roads with a car licence, whereas scooters had a larger engine size and faster maximum speed and required a [motorcycle](#) licence.

Mr. Blackman's research found in Queensland, moped registration increased 15-fold from 2001 to 2009, while motorcycle registrations, which included scooters, doubled over the same period.

He said the increase in moped and scooter use was driven largely by the demand for economical and convenient transport for commuting, which raised new [road safety](#) considerations.

"Moped crashes appear to occur at a higher rate per registered vehicle and per kilometre travelled than [motorcycle crashes](#)," Mr. Blackman said.

"Approximately one per cent of reported scooter and moped crashes resulted in a fatality, while 3.4 per cent of reported motorcycle crashes resulted in a death.

"However, 45 per cent of reported moped crashes still resulted in hospitalisation, so we need to acknowledge those serious injury concerns."

Mr Blackman said the difference in crash severity was related to the circumstances the vehicles were used in.

"Scooter and moped crashes happen more frequently in lower speed zones and on weekdays compared to crashes involving motorcycles, whose riders were more prone to risky riding behaviour, especially while

riding recreationally," he said.

"And there is an apparent difference in safety between moped and scooter riders. Crash and survey data indicate scooter riders exhibit safer riding behaviour, greater knowledge of safety issues and superior riding skills.

"This is probably due to a combination of factors, including that scooter riders tend to be older and more experienced. They also hold a motorcycle licence and are therefore likely to have undertaken rider training, unlike moped riders.

"Scooter riders also exhibit safer behaviour than motorcycle riders, despite both groups meeting the same licensing requirements. This suggests a difference in attitude which sees motorcycle riders taking more risks on the road."

Mr. Blackman said moped riders should be encouraged to learn better riding skills and cover up with appropriate clothing.

"Continued efforts are required to encourage use of protective clothing among all riders, particularly moped riders who are significantly more likely to ride while wearing non-protective clothes, such as short-sleeved shirts, skirts and open shoes."

Interesting findings:

- Approximately 36 per cent of crashed moped riders are female, compared with 7 per cent of motorcycle riders and 22 per cent of scooter riders.
- The median age of crashed riders was 32 years for moped riders, 39 years for scooter riders and 35 years for motorcyclists.
- 13 per cent of moped crashes occurred on wet roads, compared

with 6 per cent and 8 per cent of scooter and motorcycle crashes, respectively. This suggests inferior riding skills among moped [riders](#).

- 29 per cent of moped crashes were single-vehicle crashes, compared with 21 per cent of scooter crashes and 34 per cent of motorcycle crashes.
- In 63 per cent of multi-vehicle [crashes](#) involving all motorised two-wheeled vehicles, other road users, such as trucks and cars, were deemed by police to be most at fault in causing the crash.

Provided by Queensland University of Technology

Citation: Safety on two wheels revealed (2012, April 19) retrieved 26 April 2024 from <https://phys.org/news/2012-04-safety-wheels-revealed.html>

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