

E-SCOOTER CRASHES IN SOUTH AUSTRALIA

Researchers from SA Health and The University of Adelaide have been awarded grant funding from the Lifetime Support Authority to conduct research into e-scooter injury and crash mechanisms commencing in 2025.

Why study e-scooter crashes?

- The adoption of e-scooters has increased dramatically in cities globally providing convenient mobility options for people and alignment with sustainable transport objectives
- Where laws allow, e-Scooters can usually be used via a commercial hire scheme arrangement or as a privately owned device
- As with all transport modes, there are negative consequences relating to risk and injury that need to be monitored and understood
- There is a worldwide trend of increasing hospital presentations as a result of e-scooter use
- In Australia, hire scooters have usually been restricted to footpaths in specific geographic zones, are speed-limited and also require mandatory helmet-use by a single-rider with a BAC<0.05
- In the Adelaide CBD there were 808,000 hire trips recorded between December 2019 and October 2022
- Adelaide hospital emergency departments (CALHN) have observed increases in presentations of injured riders and other road users as a result of e-scooter collisions
- With increased exposure, injury numbers are expected to increase upon legalisation for the use of privately-owned devices in July 2025, see link below to Government of South Australia my licence website
- This study will provide a rare opportunity to monitor injury patterns as private use of e-scooters is legalised and increases over time



Data is needed for evidence-based interventions

- Other cities have found e-scooter related hospital admissions exhibit higher instances of traumatic brain injuries than those from bicycles and motorbikes
- Contributes substantial economic burden to hospital and local health systems
- Detailed crash investigation is required to understand injury factors, severity, role of infrastructure and scooter design to inform policy and harm prevention strategies.

THE RESEARCH COLLABORATION

Centre for Automotive Safety Research (CASR) at The University of Adelaide

- Crash investigators and road safety researchers

Centre for Orthopaedic and Trauma Research (COTR) at the University of Adelaide Medical School

- Biomechanics Injury researchers

Royal Adelaide Hospital (RAH), The Queen Elizabeth Hospital (TQEH), SA Health

- Emergency Department Clinicians



Funded by a Lifetime Support Authority Research Grant (R24028)

This study has been approved by the CALHN Human Research Ethics Committee (Approval number 20815).

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STUDY DESIGN

