FACT SHEET:

Quad bike safety

Child Accident Prevention Foundation of Australia

There have been more than 160 quad bike-related fatalities in Australia since 2001.[1]

In 2011, media reports indicated there were at least 23 quad deaths and more than one major injury a week across Australia.[2]

More than 20 percent of deaths[1] and 28 percent of injuries involved children under 16.[3]

The facts

Quads were the leading cause of injury leading to death on Australian farms in 2011. They were also responsible for four of the eight child deaths on farms in 2011.[2]

Most of the quad-related deaths in Australia involved children or adults over 45.[1]

The risks

Quads give an illusion of stability, but are prone to rollover.

They have a high centre of gravity relative to their size.

Quads can tip in any direction – forwards, backwards or to the side. If the force is sufficient, a rollover incident can result.

A rollover incident involves the quad tipping onto any of its sides.

In the event of a rollover, the rider may be ejected from the bike or trapped underneath. There is a high death rate when riders are trapped. Death results from crush, asphyxiation and/or drowning (if the rollover occurs in water).[4]

About half of all deaths involve rollover incidents.[1]

The Victorian Coroner, in reviewing quad deaths, acknowledged the instability of the vehicles, saying:[5]

"While some call quad bikes all-terrain vehicles, the evidence is clear that they are not in fact suitable for all terrain and calling them such creates a false impression that warnings are unable to erase."

Quad bikes weigh around 300 ore more kilograms.

Children do not reliably have the physical size, strength, reflexes or cognitive ability to safely operate a quad of any size.[6]

A review of Queensland injury surveillance emergency data shows that 23 percent of children under 16 with quad-related injuries could be linked to instability during operation (partial tipping or a rollover event).[3]

Compared to non-rollover events, rollover events result in greater injury severity in children.

Rollovers account for about 10 percent of child quad crash injuries, but more than a quarter of severe cases.[2]

While there are child-sized quads on the market, the same injury risks apply, with only a small reduction in the incidence of rider death and injury associated with use of 'size/age appropriate' quads.[6]

Children and quads of any size are a potentially fatal mix.

Prevention

Quads are not toys. Children under 16 should not be on any size quad as a driver or passenger.

For adult users, the following steps are suggested from the most to least effective. A combination of all will give the best result:[4]

- Try to select a safer alternative vehicle, for example, a ute or side-by-side vehicle.
- If still choosing to use a quad, fit a crush protection device.
- Make sure riders are trained and supervised.
- Ensure load limits are maintained and no passengers are carried.
- Wear a helmet.

Sources

1. Lower T, *Australian Quad Bike Fatalities*, presentation to the Quad Bike Forum, 19 October 2012, Melbourne.
2. Herde E, Lower T, *Farm-Related Injuries Reported in the Australian Print Media 2011*, Australian Centre for Agricultural Health and Safety. Moree, NSW., 2012. Available at aghealth.org.au/tinymce_fm/uploaded/Research%20Reports/farm_related_injuries_2011_report.pdf
3. Barker R et al, Queensland Injury Surveillance Unit, personal communication.
4. Lower T, Herde E, Fragar L, 'Quad bike deaths in Australia 2001 to 2010', *Journal of Health, Safety & Environment* 2012;28:7-24.
5. State Coroner Victoria, *Coroners Regulations 1996*, Form 1, Record of Investigation into Death, Case No:245/02 Yanchar N. 2012.
6. 'Preventing Injuries from All-Terrain Vehicles' – position paper, Injury Prevention Committee Canadian Paediatric Society. Available at .cps.ca/documents/position/preventing-injury-from-atvs.