



Length of the learner licence

Currently in Queensland, a motorcycle learner licence can be held indefinitely by a person holding a car or other licence class. Motorcycle learners cannot ride on the road unless they are supervised by an appropriately licensed person. A significantly higher proportion of people currently hold a learner motorcycle licence (almost 23% of all motorcycle licences) than those who hold a learner licence for a car or other vehicle (less than four percent)³². It suggests that many holders of a motorcycle learner licence never progress beyond learner, because the learner licence status does not expire.

A maximum learner licence period would encourage riders to learn the skills necessary to progress to an RE licence. A maximum learner licence period of three years was proposed as an option in the *Motorbike Safety in Queensland* – *Consultation Paper*. If at the end of the learner period the learner has not gained the necessary skills, they would be required to reapply for their learner licence, re-sitting the practical and theoretical assessment. This would help ensure that riders consolidate their practice and skills to become safer riders as well as ensuring new riders maintain current road rules knowledge.

Currently, there is a minimum learner licence period of six months for riders being assessed under the Q-SAFE system to allow riders sufficient time to accumulate skills and experience. This encourages riders to get on-road experience and understand the operation of a motorcycle. There is no minimum learner licence period for riders who are trained within the Q-Ride system and assessed as competent.

Actions

- Introduce new restrictions to enhance the current motorcycle graduated licensing system, including:
 - replace the 250mL engine capacity restriction for learner and RE licence holders with a Learner Approved Motorcycle Scheme (LAMS), consisting of 150 kilowatts per tonne power-to-weight ratio and 660mL engine capacity upper limit;
 - a zero blood and breath alcohol limit for all learner, provisional and novice motorcycle licence holders, regardless of age (the term 'novice rider' refers to the first 12 months of licensing after the learner stage even though the rider may have held an open car licence for some time);
 - no passengers for learner riders (including a supervisor);
 - a requirement for riders holding a provisional licence to display a P plate; and
 - minimum and maximum learner licence periods.
- Investigate the benefits of introducing a zero alcohol limit for all motorcycle riders.



32 Queensland current driver licences as at 31 December 2007, Data Analysis Unit, Queensland Transport. Research revealed that riders wearing any reflective or fluorescent clothing had a 37% lower crash risk than those who did not wear such clothing.³³

Priority: Protective clothing

Protective clothing for motorcyclists such as leather gloves, jackets, trousers, suits, boots and impact protectors can significantly reduce minor injuries such as bruising, abrasions and lacerations in the event of a crash. Safety standards have been developed for motorcycle clothing in Europe. While Australia has voluntary industry guidelines developed by Standards Australia, it does not have an enforceable standard or ratings system to inform motorcyclists about the protective qualities of the clothing they buy.

The visibility of motorcyclists is considered an important factor in motorcycle crashes involving other motor vehicles. The visible areas of a motorcycle and rider are smaller than that of other motor vehicles. While motorcycle riders can help themselves by being more conspicuous to other road users, drivers are often unaware that motorcycle riders are present on the road. Enhancing rider visibility may prevent crashes.

Research conducted in New Zealand revealed that riders wearing any reflective or fluorescent clothing had a 37% lower crash risk than those who did not wear such clothing³³. Increased use of reflective or fluorescent clothing and light coloured helmets could make motorcyclists more visible to other road users, and help to reduce motorcycle crash related injury and fatalities. Queensland Transport encourages motorcycle riders and their passengers to wear protective and high visibility clothing throughout their motorcycle riding life. The information provided by Queensland Transport will continue to educate and encourage riders to choose clothing that protects them in the event of a crash and increases their visibility to other motorists on the road.

Actions

- Develop public education campaigns and/ or communication activities that encourage motorcyclists to:
 - wear protective clothing to mitigate injury severity in the event of a crash; and
 - wear clothing to improve motorcyclist visibility to other road users.
- Participate in the development of a national guideline for protective gear for motorcyclists, and once complete, promote to motorcyclists.
- Participate in the development of an Australian Standard or rating system (possibly based on the European Standard) setting technical specifications for motorcyclist gear prescribed as 'protective'.

³³ Wells, Mullin, Norton, Langley, Connor, Lay-Yee and Jackson (2004), Motorcycle rider conspicuity and crash related injury: case-control study, *British Medical Journal* 328:857.



Priority: 'Returning riders

There has been concern about returning riders and their supposed increased crash risk. Returning riders may have held a motorcycle licence for many years, but decided to take an extended break from riding, most commonly while raising a family. As family and other commitments ease, they may decide to return to riding (hence, a 'returned rider'). Motorcyclists who have had an extended break from riding may be at greater risk because of limited recent riding experience. Familiarity with the motorcycle used may also be an important factor³⁴ and advances in motorcycle technology mean that motorcycles may be more responsive than earlier models³⁵. It is difficult to determine if the 'returning rider' is a real effect or not. In Queensland, there are approximately four licence holders for every registered motorcycle, which suggests there may be a large number of 'dormant' licence holders who are not currently or regularly riding. This does not account for people who have more than one registered motorcycle, who may share a registered motorcycle or ride only for work purposes, nor does it take into account people who only ride motorcycles off-road. There is, however, an upward trend in fatalities nationally among riders 44 years and older, suggesting that the 'returning rider' is a real phenomenon³⁶.

- 34 Mullin, Jackson, Langley and Norton (2000), Increasing age and experience: are both protective against motorcycle injury? a case-control study, *Injury Prevention*, 6:32-35.
- 35 Jamson, Chorlton and Connor (2005), *The Older Motorcyclist Road Safety Research Report No. 55*, Department for Transport: London.
- 36 Johnston, Brooks and Savage (2008), Fatal and serious road crashes involving motorcyclists, Monograph 20, Australian Transport Safety Bureau, www.infrastructure.gov.au/roads/ safety/publications/2008/pdf/mono20.pdf

Dormant riders who maintain their motorcycle licence endorsement can return to riding at any time. This may contribute to the increase in older riders, and possibly even contribute to the increased crash involvement of older riders. As there is no additional fee to hold a motorcycle licence (when attached to a C class car licence),



many riders retain the motorcycle endorsement on their licence while not riding. Similarly, many drivers who have a licence endorsement to drive a bus or other heavy vehicle continue to hold that licence while no longer driving that class of vehicle. Nothing prevents a motorcycle licence holder from returning to riding after an extended period.

Actions

- Research the risks associated with dormant and returning riders, and investigate alternatives to encourage appropriate skills refreshment for riders returning after an extended break from riding.
- Develop public education campaigns and/or communication activities for returning riders (for example, information illustrating the risks for riders returning after an extended break from riding, and to encourage refresher training).

Priority: Public education safety campaigns

Queensland Transport will continue to develop, implement, and evaluate motorcycle safety campaigns. These campaigns primarily target motorcyclists (males aged 17–49), the increasing number of moped riders, and motorists. The public education campaigns follow a social marketing model with most motorcyclists targeted at the pre-contemplation stage of behaviour change. Firstly, it will target general awareness in motorcycle riders. Secondly, it will encourage individuals to recognise that a behavioural problem exists,



and subsequently encourage individuals to be analytical about their current attitudes and behaviours. The integrated marketing communication campaigns comprise of advertising, online presence, promotional collateral, publicity, and a media and issues strategy. Campaign activities are informed by extensive market research, crash statistical analysis, and stakeholder consultation. This also includes updating departmental publications such as Your keys to driving in *Queensland*, and other relevant publications. The Queensland Transport website will also be updated with key messages, information about changes to licensing and registration requirements, and 'share the road' messages.

Queensland Transport will investigate developing a motorcycle riders' handbook, in print or electronic format, similar to those produced by the Road Transport Authority (New South Wales), and Department of Infrastructure, Energy, and Resources (Tasmania) and VicRoads (Victoria). It is envisaged that the publication will include information on motorcycle licensing, motorcycle types and protective clothing, safe riding, road rules, offences and penalties, and motorcycle roadworthiness.

This publication's content would be informed by stakeholder consultation and market research.

Actions:

- Develop public education campaigns and communication activities, including:
 - a motorcycle riders' handbook;
 - public education campaigns and/or communication activities to promote other new Queensland Motorcycle Safety Strategy 2009–2012 initiatives;
 - evaluate current material and continue to develop new public education material for motorcycle riders and other road users (including 'share the road' type messages);
 - review the need for more 'share the road' information in *Your keys to driving in Queensland;* and
 - develop internet content appropriate for young riders.

Priority: Ongoing research

Having access to accurate and current data is critical to analysing trends in road safety. Queensland Transport has a strong relationship with a number of research institutions and equivalent interstate bodies, regularly commissioning research and communicating with peers to ensure that policy makers are kept up to date with relevant information.

There are some aspects of motorcycle safety that are not directly dealt with in this Strategy. This is because there is not enough known yet about the size or nature of the problem or the risks, or the best way to manage them.



The number of moped registrations in Queensland increased by 150% between 2004 and 2007.



Mopeds

Mopeds are increasingly popular. The number of moped registrations in Queensland increased by 150% between 2004 and 2007, and there are now more than 12 000 mopeds registered. Mopeds are popular within the tourism industry and there are a number of tourism operators that hire mopeds to tourists. In Queensland, anyone holding a C class (car) licence is able to ride a moped³⁷ (up to 50mL engine capacity), but a motorcycle licence is required to ride larger capacity scooters. In a number of other Australian states a motorcycle licence is required to ride a moped.

37 moped means a motorbike with an engine capacity of not more than 50mL; and that has a manufacturer's top rated speed of not more than 50km/h; and is not a bicycle (Schedule 7, Transport Operations (Road Use Management – Driver Licensing) Regulation 1999). Scooters with a higher engine capacity are defined as motorcycles. Moped riders face very similar risks to motorcycle riders because they are similarly vulnerable to injury in the event of a crash, yet riders are not required to have specific motorcycle training. To complicate matters, moped type vehicles are not separately identified from other motorcycles in crash statistics, so it is difficult to identify moped crash involvement. This illustrates why more research needs to be done before changes (if any) are made to the requirements for mopeds.

Actions:

- Collaborate with the Motor Accident Insurance Commission (MAIC) to commission and conduct motorcycle safety research, including education and training programs for riders.
- Conduct research to obtain relevant and accurate data on the use of mopeds and motor-trikes (three wheel motorcycles), including crash involvement.
- Research best practice moped and motor-trike training and licensing options.
- Continue to investigate improvements to the quality of motorcycle crash and exposure data.
- Continue to conduct on-going research into motorcyclist behaviour.
- Continue to monitor and evaluate the effectiveness of the Q-SAFE and Q-Ride motorcycle licensing systems in Queensland.
- Review the Terms of Reference, role and function of the Motorbike Safety Working Group and consider its future role as an advisory committee.

Safe vehicles

Priority: Advanced safety technology

Many of the improvements in vehicle technology that protect car occupants are not so effective for motorcyclists. However, specific technology to improve motorcycle safety is available and motorcyclists should be encouraged to consider the safety features that may reduce their crash risk or injury outcome.

Actions

 Monitor the development of advanced safety technology and promote features showing evidence of road safety benefits via public education campaigns.

Priority: Use of lights during daytime riding

Although no longer compulsory, motorcyclists should consider purchasing motorcycles that have hardwired head and tail lights or be encouraged to ride with their lights on. Current research suggests that motorcycles with lights on during the daytime are more easily seen than motorcycles without lights during the daytime³⁸.

Actions

 Develop public education campaigns and/or communications activities to encourage motorcyclists to ride with their front headlight turned on at all times, to improve their visibility to other road users.

Safe roads and roadsides

Priority: Road maintenance and infrastructure projects targeted at motorcycle safety

Road conditions such as potholes, corrugations, debris, rough surfaces, gravel on corners, limited sight distance, and sharp curves can be more dangerous for motorcyclists than for other motorists. Over 40% of fatal motorcycle crashes in Australia are single vehicle crashes³⁹. Treatments aimed specifically at addressing motorcycle safety can help to reduce the severity of injuries in the event of a crash.

In Queensland, road improvements specifically aimed at improving the safety of motorcyclists are currently funded through the Department of Main Roads' *Safer Roads Sooner* program. This funding is directed into the Motorcycle Mass Action Program that aims to provide road treatments on routes where there have been many motorcycle crashes. An injection of additional funding necessary for implementing the Program across further identified sites has been granted to the Department of Main Roads.

The program targets routes that have been identified as having high crash levels, to be fully audited by engineers and experienced motorcyclists. These include 'black length', road segments (five kilometres in length) that have had five or more motorcycle crashes (loss of control type crashes) within the last five years, and 'black spots' – sections of roads less than 250 metres in length with three or

38 Wells, Mullin, Norton, Langley, Connor, Lay-Yee and Jackson (2004), Motorcycle rider conspicuity and crash related injury: case-control study, *British Medical Journal* 328:857. 39 National Road Safety Action Plan 2007–2008, Australian Transport Council. www.atcouncil.gov.au/documents/nrss_ actionplan_0708.pdf

more crashes (ranging from hospitalisation to fatal in severity) (Figure 3). Treatments will be implemented along the entire length of identified routes and focus on providing riders with an 'easy to read' road environment, while providing forgiving roadsides that minimise crash severity for motorcyclists. The program will also develop guidelines to identify and prioritise routes most urgently requiring treatment.

The Motorcycle Mass Action Program will use a number of treatments similar to those utilised in the VicRoads Motorcycle Blackspot Program⁴⁰.

These include:

- minor areas of pavement resurfacing/ correction to provide a smooth road surface where there are irregularities/ corrugations on high risk curves or at areas of motorcycle braking;
- repair, sealing and delineation of shoulders on high risk curves;
- repairs to broken road edges;
- sealing of bellmouths at intersecting unsealed roads, driveways and parking areas, where appropriate, to prevent gravel wash;



Figure 3: Example of identified and targeted motorcycle high crash areas in Queensland locations

40 VicRoads Motorcycle Safety Levy Program (2007), Guidelines for on-road treatments for motorcycle crashes, VicRoads.



- improvements to roadside drainage to prevent water/loose material washing onto the road surface;
- improved and consistent delineation along the entire route (for instance edge and centre lines, guideposts);
- improved visibility/sightlines to intersections and other potential hazards (clearing of vegetation, minor modifications to road batters to open up curves);
- installation of skid resistant surfacing on steel bridge expansion joints;
- removing unnecessary roadside furniture (sign posts), relocating signs in high risk locations (i.e., close to the road edge where a motorcyclist may lean to track around a curve), consolidating signs onto a single post, and the use of frangible posts and signs;
- installation of limited lengths of safety barriers at immovable roadside objects or steep side slopes; and
- addition of under-run protection ('rub-rail') beneath w-beam guardrails on the outside of curves in high risk/crash locations, as well as replacing metal delineators with plastic delineators.

The Department of Main Roads will also collaborate with national and international efforts to validate and improve the performance of road furniture in relation to motorcycle safety. For example, safety barriers and signs perform vital road safety functions that save many lives. These objects are generally classed as roadside furniture. While roadside furniture can protect riders from many hazards, in the event of a collision it is not as forgiving for motorcyclists as it is for car occupants. Several products that purport to make roadside furniture more forgiving for motorcyclists are available. However, there is no agreed testing procedure in Australia to determine what level of protection these products offer.

Actions

- Continue road maintenance and infrastructure projects aimed specifically at enhancing motorcycle safety, including the Motorcycle Mass Action Program (*Safer Roads Sooner* package managed by the Department of Main Roads).
- Continue to monitor both Australian and international developments relating to targeted road safety improvements for motorcycle safety.



Safe speeds

Priority: Develop innovative ways to ensure motorcyclists travel at safe speeds

Between 2003 and 2007, speeding was the major contributing factor associated with 34% of motorcyclists involved in fatal crashes⁴¹. Difficulties with detecting and identifying speeding motorcycles are often attributed to the lack of a front number plate. These are not required for motorcycles in Queensland or elsewhere in Australia. The exemption from displaying a front number plate is based on concerns that a metal plate at the front of a motorcycle creates a safety risk to the rider and other road users should a motorcycle be involved in a crash. Radio Frequency Identification Devices (RFIDs) are one technology that may be considered.



Actions

 Monitor developments at the national level for alternative methods to identify speeding motorcyclists (including consideration of Radio Frequency Identification Devices and front number plates) and investigate alternative technologies.

Where to from here

This *Queensland Motorcycle Safety Strategy* 2009–2012 sets out the direction that the Queensland Government will take during the next four years to improve the safety of motorcycle riders, their passengers and other road users. It provides a plan for the specific actions to be undertaken to improve motorcycle safety.

Every year, Queensland Transport will report on the progress and implementation of Strategy actions via the Queensland Transport Annual Report.

The Strategy will be reviewed at its conclusion in 2012. Beyond 2012, it is envisaged that motorcycle safety will be reincorporated into the *Queensland Road Safety Strategy*.

41 Data Analysis Unit, Queensland Transport.





For further information

Web: www.transport.qld.gov.au/motorbike_safety Phone: 13 23 80 (during business hours)