

### CONTENTS

Page 2

Overview

### Page 3

What makes a safe helmet?

How can I reduce the chances of a crash?

#### Page 4

How do I know if my clothing will protect me in a crash?

Do I need an anti-lock braking system?

#### Page 5



# MOTORCYCLE SAFETY

The number of people riding motorcycles on our roads has grown a significant amount over the past few years. Motorcyclists are also some of our most vulnerable road users. The following pages provide some good information into the most asked questions we receive on motorcycle safety.



What's the State government doing to improve motorcycle safety?



### **OVERVIEW**

People are vulnerable when riding a motorcycle on a road for a number of reasons:

- They have little protection in the event of a crash, compared with a car
- Riders are subject to variations in road surface conditions
- It requires more control and skill by the rider to operate safely compared to a passenger car.
- Motorcycle riders operate in high speed environments beyond the safe physical tolerance limits the body can withstand without serious harm in a crash.

Despite this, the number of motorcycles and mopeds has been increasing in Western Australia at a much faster rate than passenger cars in recent years.

The number of registered motorcycles in WA has more than doubled between the baseline period (60,252) and 2016 (128,619). The 112% increase in WA is higher than other Australian jurisdictions at 78%.





### HOW CAN I REDUCE THE CHANCES OF A CRASH?

As well as obeying the road rules, people riding motorcycles can reduce the dangers of being killed or seriously injured on WA roads by wearing a helmet and protective clothing.

It is also important to stay alert, as in 60% of motorcycle crashes (in 2016) there was no other vehicle involved.



## WHAT MAKES A HELMET SAFE?

First of all, wearing a helmet is mandatory.

The following motorcycle helmets are now allowed in Western Australia:

- Australian Standard (AS) 1698:1988, Protective helmets for vehicle users;
- Australian Standard /New Zealand Standard (AS/NZS) 1698: 2006, Protective helmets for vehicle users;
- United Nations Economic Commission for Europe (UN ECE) 22.05, Uniform provisions concerning the approval of protective helmets and their visors for drivers and passengers of motor cycles and mopeds.

You can check the crash rating of your helmet online.

Some helmets now have built in GPS systems and built in cameras to show rear views and eliminate blind spots.







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### HOW DO I KNOW IF MY CLOTHING WILL PROTECT ME IN A CRASH?

MotoCAP, or the Motorcycle Clothing Assessment Program, is a consumer information program designed to provide riders with scientifically-based information about the protection and comfort of a range of motorcycle jackets, pants and gloves available in Australia and New Zealand.

The clothing is subjected to:

#### Abrasion tests

 Measures the time for the garment to wear through when pressed against a sandpaper belt at high speed.

#### Impact tests

 Measures the forces absorbed by the garment's impact protectors when a 5kg anvil is dropped onto it.

#### Seam strength tests

 Measures the amount of pressure the garment's seams can withstand before bursting open.

#### Thermal tests

 Use a hotplate to measure how well the clothing insulates against heat and wicks sweat away from the body.

Look for the star rating when buying your motorcycle clothing.



Motorcycles are, by nature, less stable than four-wheeled vehicles. Braking too hard can destabilise a motorcycle and lead to either the front or rear wheel locking, causing the bike to overturn or slide.

### **DO I NEED AN ANTI-LOCK BRAKING SYSTEM?**

It's important to look for an anti-lock braking system which will prevent the bike from skidding, and increases stability. Motorcycles are, by nature, less stable than four-wheeled vehicles. Braking too hard can destabilise a motorcycle and lead to either the front or rear wheel locking, causing the bike to overturn or slide.

Alternatively, failure to brake hard enough can result in a rider failing to avoid a crash.

ABS works to prevent a motorcycle's wheel, or wheels, from locking during braking. ABS uses speed sensors on both wheels to accurately determine wheel speed as well as sensors to determine when a wheel is about to lock.

ABS adjusts the braking pressure accordingly to prevent the wheel from locking and assists with maintaining the stability of the motorcycle. In many circumstances, ABS has been shown to reduce braking distance. Motorcycles with ABS technology have been shown to be involved in fewer crashes on the road.

A report into the benefits of Anti-Lock Braking Systems (ABS) on on-road motorcycles was commissioned by the Commonwealth and Victorian Governments and released in 2015. The report found that:

- ABS could reduce the rate of death and severe injury from motorcycle crashes by 31%
- only around 20% of new motorcycles come with ABS as standard
- at the current rate of ABS motorcycle sales, this technology has the potential to save 22 lives between now and 2025
- this figure could rise to 35 saved lives if ABS is made standard on all new motorcycles from 2018.

You can download a copy of this report from the Monash University Accident Research Centre (External link).



### WHAT'S THE STATE GOVERNMENT DOING TO IMPROVE MOTORCYCLE SAFETY?

In response to the high number of motorcyclist deaths in 2014 (44), an inter-agency working group was formed to examine issues and identify additional actions that could be pursued to improve motorcycle and moped safety in Western Australia.

The Motorcycle Safety Review Group (MSRG) was established and chaired by the then Office of Road Safety and later Road Safety Commission and included representatives from the Department of Transport, WA Police, Main Roads WA and Insurance Commission of WA.

The final report was produced in December 2015 and identified 39 actions to improve motorcycle safety in the following areas:

- Encourage more responsibility by the riders for their personal safety and the safety of others. The rider or driver of a vehicle has ultimate responsibility for their actions.
- Improve rider interactions with other road users. Multi-vehicle crashes could be potentially avoided if drivers had a greater awareness of motorcyclists, their inherent vulnerability, made better judgements and took responsibility for sharing the road with other road users.
- Improve motorcycle rider competencies. At present, there are several areas in the Western Australian Graduated Rider Training and Licensing System where the requirements for motorcycle riders are not as rigorous as those for novice car drivers.
- Make the road and roadside environment more motorcycle friendly. Motorcycles are, by their nature, more sensitive than other road users to any road irregularities.
- Improve the uptake of motorcycles that have better crash avoidance features.