## Speed

## Speeding is the biggest contributor to road trauma on NSW roads.

Each year almost 135 people die and 1,141 people are seriously injured in NSW from speed-related crashes.

Speeding is not just travelling above the designated speed limit, but also driving too fast for the conditions (e.g. wet weather and curves in the road).

## The facts

- Most speeding deaths occur at no more than $10 \mathrm{~km} / \mathrm{h}$ over the speed limit.
- In NSW, speeding consistently contributes to around 41 per cent of road fatalities and 24 per cent of serious injuries each year.
- If you're going $10 \mathrm{~km} / \mathrm{h}$ over in a $60 \mathrm{~km} / \mathrm{h}$ zone, you're four times as likely to be involved in a crash.
- More than half of NSW drivers admit to speeding at least some of the time.
- Going $5 \mathrm{~km} / \mathrm{h}$ over in a $60 \mathrm{~km} / \mathrm{h}$ zone on an average commute saves you just 75 seconds and doubles your crash risk.
- 69 per cent of speed-related casualty crashes in NSW in 2018-20 happened on a curve.


## The faster you go, the harder you hit

No matter what causes a crash, vehicle speed directly affects the force of the impact and the resulting trauma outcome.

## - Pedestrian crash

There is a 10 per cent risk that a pedestrian will be killed if hit by a modern car at $30 \mathrm{~km} / \mathrm{h}$. At a $50 \mathrm{~km} / \mathrm{h}$ impact speed, the risk increases to 90 per cent.*

## - Side impact crash with another vehicle

There is a 10 per cent risk that a person in a safe car will be killed if they crash at speed of up to $45-50 \mathrm{~km} / \mathrm{h}$. At a $70 \mathrm{~km} / \mathrm{h}$ impact speed, the risk increases to 80 per cent.

## - Side impact crash with a tree/pole

Because the energy is concentrated on a smaller area, side impact crashes with a narrow, fixed object, like a tree or pole, are less survivable than those with another vehicle, and the fatality risk at $45-50 \mathrm{~km} / \mathrm{h}$ is much higher.

## - Head on/frontal impact with another vehicle

There is a 10 per cent risk of a driver/passenger being killed at collision speeds up to $70 \mathrm{~km} / \mathrm{h}$. At $90 \mathrm{~km} / \mathrm{h}$ the risk is up to 80 per cent. This is why speed limits are often set lower when there are no central barriers to protect motorists from oncoming vehicles.

With increased speed, the amount of energy released in a crash increases. It is inevitable that some of this energy will be absorbed by the human body. However, the human body can only withstand limited forces before injury or death occurs.

Pedestrians and bicycle riders are particularly vulnerable as they are unprotected during a crash.

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## The faster you go, the greater your risk of a crash

As speed increases, so does the likelihood of serious injury or death. This is because:

- The driver has less time to react to a hazard.
- The distance travelled before coming to a stop is greater.
- The speed upon impact is greater.

The combined effects of reaction and braking times in both wet and dry conditions is illustrated below.
 distance +

Speed


Stopping distance


[^0]:    * Wramborg, P 2005, 'A new approach to a safe and sustainable road structure and street design for urban areas', Road safety on four continents conference, 2005, Warsaw, Poland, Swedish National Road and Transport Research Institute (VTI), Linkoeping, Sweden.

