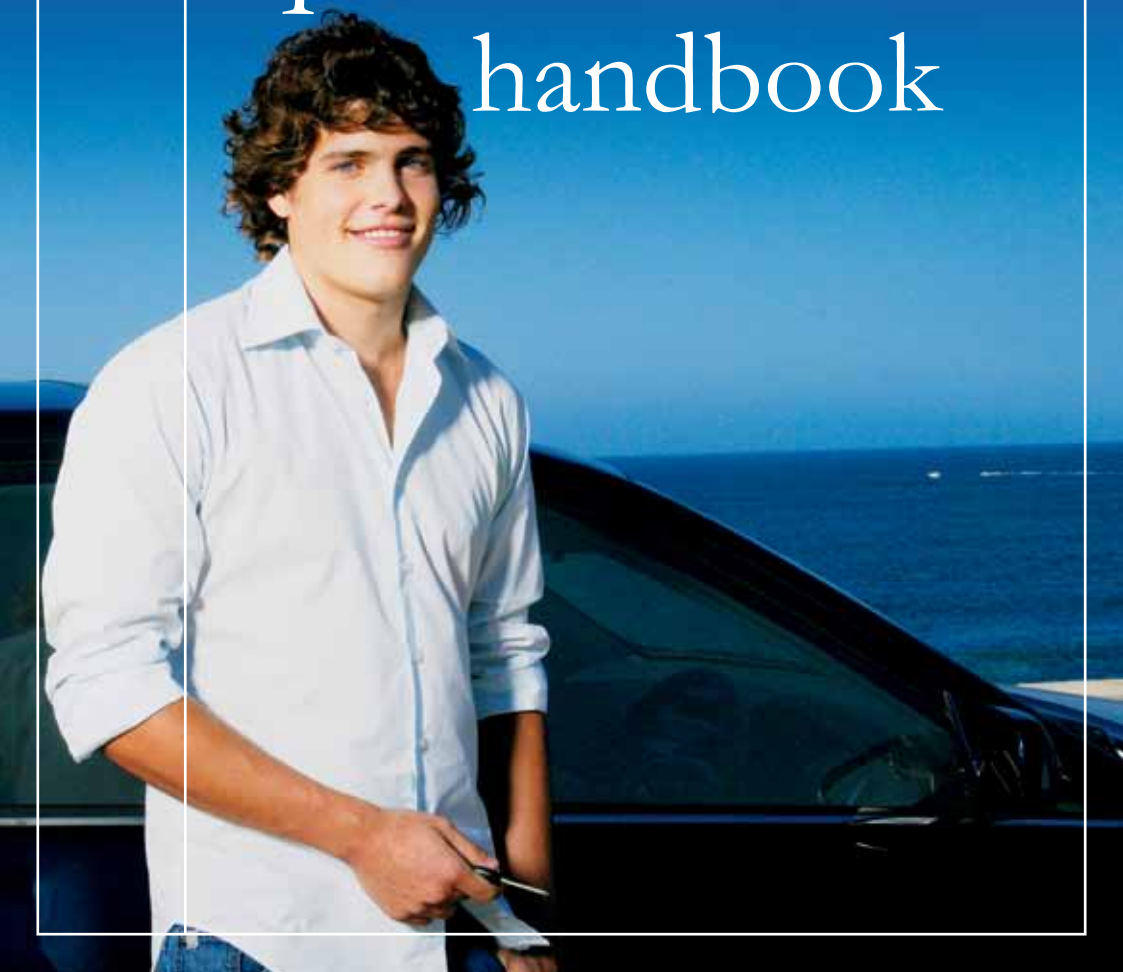
NSW GOVERNMENT

Transport
Roads & Maritime
Services

Driver qualification handbook



This handbook is only an interpretation of the law made easy to understand by using plain English. Laws change often so make sure you have the most recent handbook available on Roads and Maritime Services (RMS) website at www.rms.nsw.gov.au

OTHER RMS PUBLICATIONS FOR LEARNER DRIVERS

- Road Users' Handbook
- Hazard perception handbook

Contents

1

Background information

Introduction

THE DRIVER QUALIFICATION TEST (DQT)

The DQT is a touch-screen, computer-based test which assesses:

- Your knowledge of safe driving practices
- Your ability to recognise and respond to potentially dangerous situations and react appropriately.

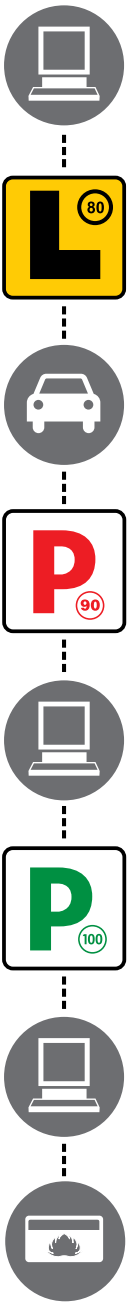
The DQT is one test made up of two parts:

- Part 1 tests advanced safe driving knowledge (the Knowledge Test or KT).
- Part 2 tests advanced hazard perception skills (the Hazard Perception Test or HP).

It's a bit like a test made up of an advanced version of the Driver Knowledge Test (DKT) that you passed to get a learner licence and the Hazard Perception Test (HPT) that you passed to get a P2 licence.

However, the DQT is more complex than the DKT or the HPT. For example, the DQT knowledge test questions have four, not three answer alternatives and the questions will be more difficult (especially if you haven't learned the material in this handbook). The hazard perception questions are longer and may require multiple responses. As the diagram shows, the DQT is the last part of the licensing scheme for new drivers. You must pass the DQT to progress from a P2 to a full NSW licence. Information on the licensing scheme for drivers can be found in RMS booklet called, *Getting your driver licence* and on RMS website (www.rms.nsw.gov.au). Copies are available free from RMS registries across NSW.

A summary of how the DQT works and what to expect when you take the test can be found in the section 1 titled, **'How the DQT works'**. You can also visit RMS website (www.rms.nsw.gov.au/dqt.htm) for a more interactive explanation.



Driver Knowledge Test

Learner licence
Max 80km/h

Driving Test

Provisional (P1) licence
Max 90km/h

Hazard Perception Test

Provisional (P2) licence
Max 100km/h

Driver Qualification Test

Full licence
Maximum 110km/h

WHY THE DQT?

The aim of the DQT is to confirm that P2 drivers have sufficient safe driving knowledge and hazard perception skills to graduate to the less restricted, full NSW driver licence. Part 1 of the DQT (advanced safe driving knowledge) is based on information from road safety research about lowering crash risk, particularly for drivers with only a few years driving experience. It will test your knowledge of all the information contained in this handbook. Part 2 of the DQT (advanced hazard perception) is based on the driving situations that lead to the five most common crash types for new full licence holders in NSW. More information on these crash types may be found in the section entitled, 'Crash patterns for provisional and full licence holders in NSW'. Research shows that hazard perception skills are important for safe driving and that drivers with poor hazard perception skills usually have more crashes. Research also shows that screen-based hazard perception tests can detect drivers with a higher risk of crash involvement. The introduction of the DQT aims to help reduce the high number of young and inexperienced drivers involved in crashes in NSW by:

- Encouraging P2 drivers to develop and refine their hazard perception skills.
- Testing P2 drivers on driving situations that are known to lead to the most common types of crashes involving new drivers in NSW.
- Only allowing P2 drivers with adequate safe driving knowledge and hazard perception skills to graduate to a full NSW driver licence.

USE THIS HANDBOOK TO HELP YOU

Because it takes time and practice to become a low-risk, competent driver with sound hazard perception skills, you should be improving from the day you graduate to a P2 licence.

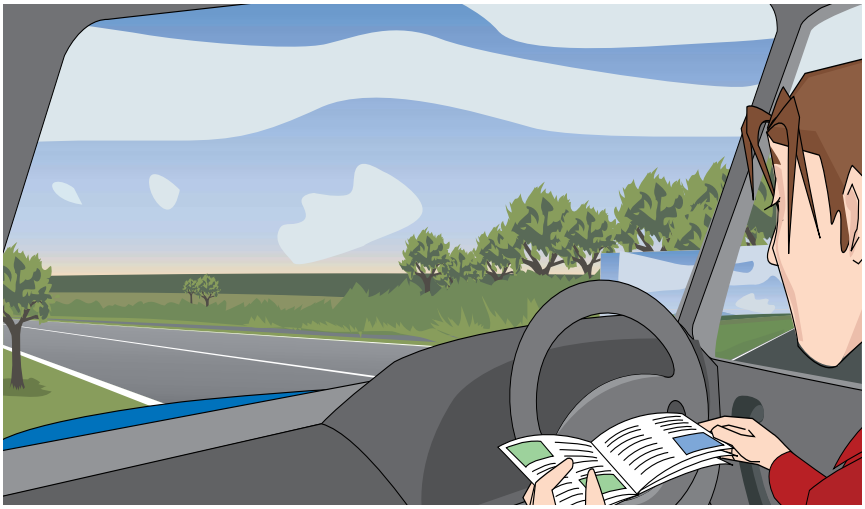
Use this book with RMS website at www.rms.nsw.gov.au/dqt.htm to become a safer driver and to help you obtain your full licence.

Section 1 of this handbook and the section on RMS website provide information about the Driver Qualification Test.

Section 2 helps you develop knowledge about safe driving and how you can reduce your risk of crashing. Section 3 helps you revise and refine your hazard perception skills.

There is also an index at the back of this handbook to help you find specific topics and a glossary to explain unfamiliar words.

If you feel you need some extra revision, revisit the *Hazard perception handbook* and website to help you prepare for the DQT (www.rms.nsw.gov.au/hpt.htm). The *Road Users' Handbook* may also be worth looking at again as it contains NSW road rules and information on safe driving.



Remember that all the material presented in the *Driver qualification handbook* can be tested in Part 1 of the DQT. Sources of data and statistics used in graphs and pictures are listed at the end of the handbook (after the glossary).

In each graph or picture there is a number which corresponds to the source list at the end of the book [e.g. Source(1)].

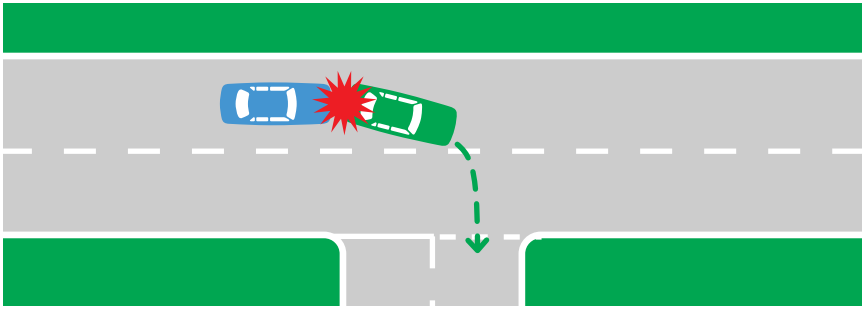
Crash patterns for provisional and full licence holders in NSW

Most crashes in NSW happen on sealed roads, in fine weather and in daylight. They are also most common in 60 km/h speed zones (about 67 per cent of all crashes) and are most likely to occur Monday to Friday between 9am and 3pm (about 23 per cent). However, crash patterns for provisional and full licence drivers are different. Patterns for full licence holders in their first year and those who have been driving for longer (on a full licence) are also different. This section gives you an idea of what the main differences are.

FIVE MOST COMMON CRASH TYPES FOR NEW FULL LICENCE HOLDERS

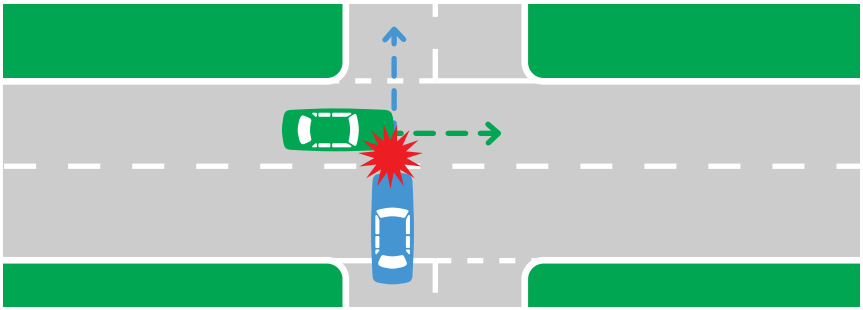
About 80 per cent of all crashes in NSW involving full licence drivers in their first year fall within just five crash types:

- **33 per cent** involve the driver's vehicle colliding with the rear of another vehicle travelling in the same direction.



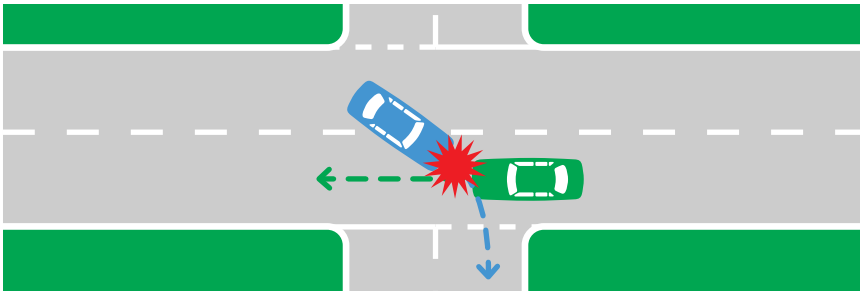
Source (1)

- **17 per cent** involve colliding with other vehicles from adjacent directions (from the side), usually at intersections.



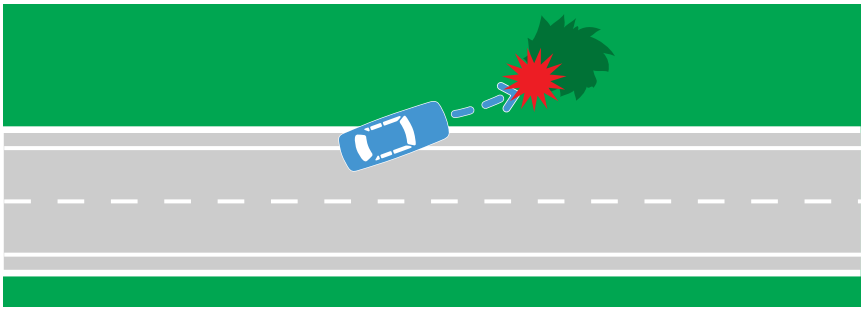
Source (1)

- **15 per cent** involve collisions with vehicles from opposing directions.



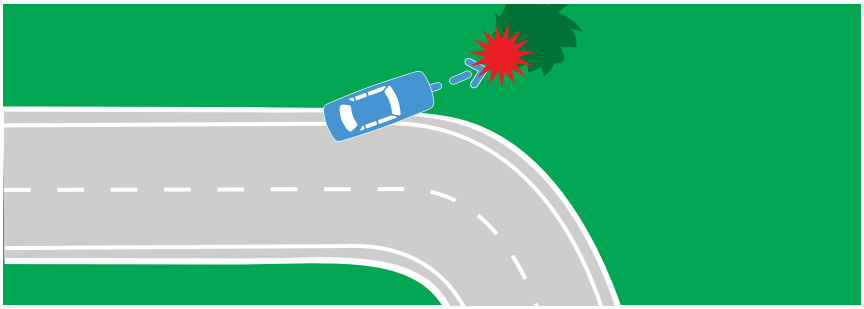
Source (1)

- **9 per cent** involve running off the road on a straight section and hitting an object or parked vehicle.



Source (1)

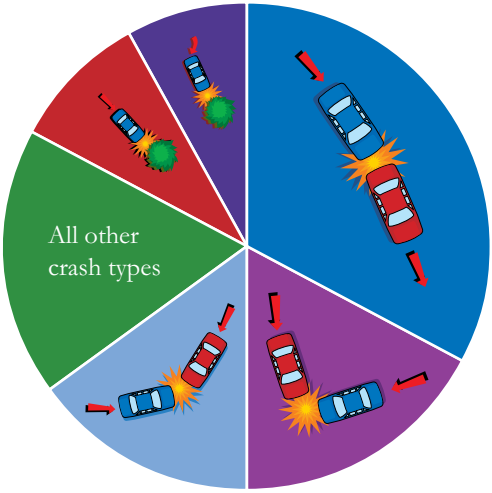
- **8 per cent** involve running off the road on a curve or bend and hitting an object or parked vehicle.



Source (1)

The following 'pie chart' summarises the main crash types for new full licence holders. All other crash types outside of these account for only about 18 per cent of all new full licence holder crashes.

FULL LICENCE HOLDERS IN THEIR FIRST YEAR



33% Colliding with the rear of another vehicle

17% Colliding from adjacent directions

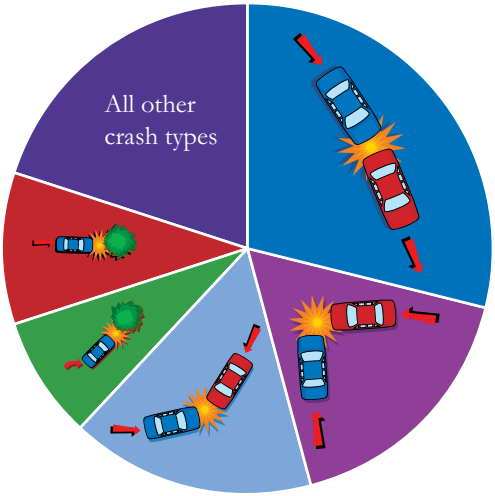
15% Colliding from opposing directions

18% All other crash type

9% Run-off road on a straight section into an object

8% Run-off road on a curve section into an object

PROVISIONAL DRIVERS



29% Colliding with the rear of another vehicle

17% Colliding from adjacent directions

16% Colliding from opposing directions

8% Run-off road on a curve section into an object

10% Run-off road on a straight section into an object

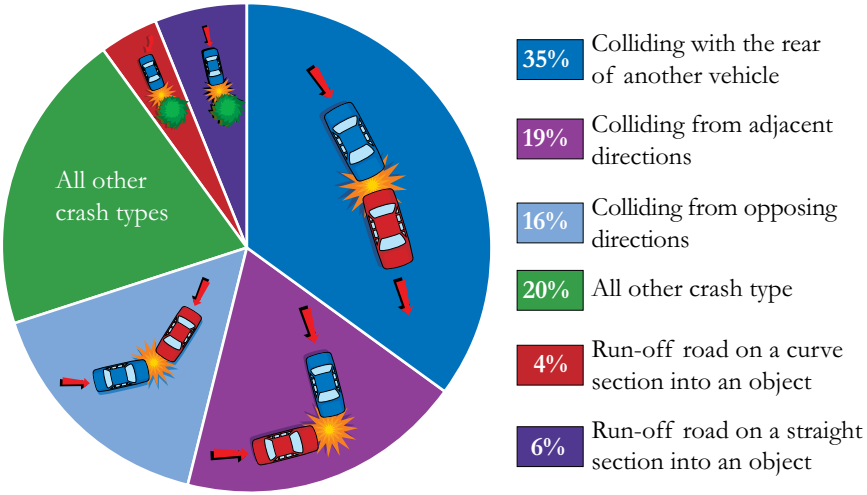
20% All other crash type

COMPARISON WITH PROVISIONAL DRIVERS AND MORE EXPERIENCED FULL LICENCE HOLDERS

When compared with provisional drivers, full licence drivers have more crashes in their first year where they run into the back of another vehicle.

Researchers think that these differences are due to novice drivers getting better at staying on the road but also getting into the habit of driving too close behind other vehicles in traffic. This bad habit seems to continue for full licence holders. As you can see from the next graph, full licence drivers with more than five years' experience have even more rear end crashes. However, they are much less likely to run off the road and hit an object.

EXPERIENCED FULL LICENCE HOLDERS



The percentages of crashes involving vehicles from adjacent and opposing directions are much the same regardless of age and driving experience (between 32 per cent and 35 per cent). This means that turning, crossing intersections and overtaking remain a challenge for all drivers. While drivers get better at staying on the road with age and experience, they continue to do things that increase their risk of being involved in a crash.

The main risks seem to be:

- Travelling too closely behind other vehicles.
- Driving too fast for the conditions.
- Not looking far enough ahead when driving.
- Failing to choose large enough gaps when making turns, crossing intersections or overtaking.

Of course, alcohol and fatigue are also major contributors to crashes in NSW.

AVOIDING CRASHES

If you know the types of crashes and situations that increase risk for new full licence drivers you can develop skills to help avoid them. This handbook will help.

KEY POINTS SUMMARY: CRASH TYPES

- With increasing experience drivers have fewer single vehicle, run-off the road crashes but more rear-end crashes
- Experienced drivers may travel too close behind other vehicles and travel too fast for the conditions.

How the Driver Qualification Test works

The DQT is a two-part, touch-screen computer-based test which assesses:

- Your knowledge of safe driving practices.
- Your ability to recognise and respond to potentially dangerous situations and react appropriately.

This section of the handbook explains how the test works and what to expect when you take it. You should also visit RMS website (www.rms.nsw.gov.au/dqt.htm) for a more interactive introduction to the DQT.

WHERE TO TAKE THE DQT

The DQT is available at RMS motor registries and other testing locations across NSW. Check with your nearest registry, visit RMS website (www.rms.nsw.gov.au) or telephone 13 22 13 for details.

A fee is charged each time you sit the DQT.

APPLICANTS WITH SPECIAL NEEDS/LANGUAGE OPTIONS

You can take the test in English, Arabic, Chinese (Mandarin), Croatian, Greek, Korean, Serbian, Spanish, Turkish or Vietnamese.

Should you require an interpreter for languages other than these or have a special need, you can discuss this and make arrangements with the motor registry Manager when you book your test, by calling 13 22 13.

WHEN TO TAKE THE DQT

You can attempt the DQT when you have accumulated at least 24 months experience on your P2 licence. However, you should only attempt the DQT when you feel ready.

Ready means that you have accumulated sufficient driving experience, have read this handbook thoroughly (and possibly visited RMS website at www.rms.nsw.gov.au/dqt.htm) and applied the information to your driving.

Remember, a fee will be charged each time you attempt the test, so make sure you don't waste your money.

TAKING THE DQT

You need to make a booking to take the DQT by calling RMS on 13 22 13 or going to a motor registry or testing agency in your area. You can also make a DQT booking on the internet (www.rms.nsw.gov.au). When you go to an RMS registry or testing agency to take the DQT your licence details will be checked. Your eligibility to sit for the test will also be checked.

Once these checks have been made and everything is in order, you will be assigned to a test kiosk to take the test. A typical kiosk is simply a special desk with a touch-screen computer.

At some testing agencies, and in some regional or remote areas, you may take the DQT on a portable or laptop computer. In these situations the DQT is exactly the same.

INTERACTING WITH THE DQT COMPUTER

All interaction with the DQT computer is via the touch screen.

The first screen that you will see is the 'Welcome screen' which looks like this. When you have read the information on the screen you just touch the screen to move on to the next screen.

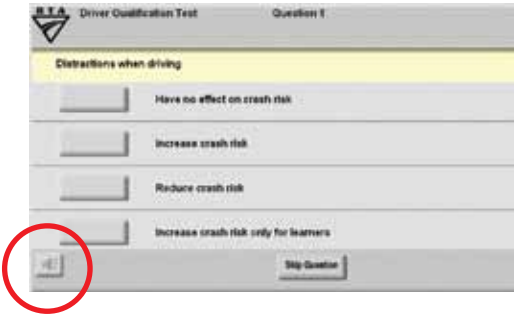
The structure of the test is:

- General information about the DQT
- PART 1 – DQT (Knowledge Test)
  – Instructions.
  – Three practice questions with feedback.
  – 15 test questions.
- PART 2 – DQT (Hazard perception)
  – Instructions.
  – Two practice questions with feedback.
  – 10 test questions.
- Overall scoring and feedback (including feedback on performance in Parts 1 and 2).

These parts of the test are explained below.

AUDIO/SOUND OPTION

You can read the test instructions on the screen and you can also have the instructions read to you via the computer's audio system. If you want to listen to the instructions, you need to advise the registry officer at the counter **before** the test and you will be given a set of headphones. You simply need to plug in the headphones to the base of the computer monitor. After the test, you **must** return the headphones to the registry officer.



THE SOUND BUTTON

There is a sound button at the bottom left of the screen marked with a speaker symbol. This button turns the sound on or off during the test. You can use it at any time if you have arranged to use headphones. When the sound button is on, you will hear the information written on the screen.

WHAT YOU WILL SEE AFTER THE WELCOME SCREEN

After the welcome screen, the computer will take you through an introductory section that tells you about the test. This is followed by the test instructions for Part 1 of the DQT on safe driving knowledge. You will also be given three practice DQT questions before the actual test starts. This will help you become familiar with the test and how it operates. If you wish, you can skip the introductory section and practice questions and go straight to the test.

THE TEST INSTRUCTIONS FOR PART 1

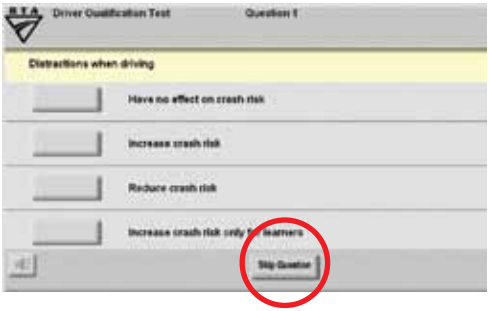
The test instructions explain that Part 1 of the DQT is made up of 15 multiple-choice test questions. The structure of Part 1 is:

- Instructions.
- Three practice questions.
- 15 test questions.
- A screen to take you to Part 2.

There are three types of questions. All the items have text (words). Some also include a picture. And others have an animation (a picture that moves). Each question has four possible answers. For each question, you must touch the answer you think is **most** correct. The answer you select will then turn **green**. An example is shown in the picture. To change your answer, just touch any of the other three answer options. When you are sure about your answer, touch the **OK** button at the bottom right-hand corner of the screen. This submits your answer to the computer and moves you on to the next question until Part 1 is completed.

At each question in Part 1 (except the last) you can either:

- Answer the question.
- Skip the question by selecting the **Skip Question** button
  (Please note: skipped questions must still be answered, but will be presented to you again when you have finished all other questions in Part 1 of the test).



PRACTICE QUESTIONS FOR PART 1

To help you do Part 1 of the DQT you will be shown three practice questions:

- One with text only.
- One with text and a picture.
- One with text and an animation.

They work just like real test questions except that after you touch the **OK** button, a tick will appear next to your answer if you selected the correct answer or a red cross if your answer was wrong. Examples of the ticks and crosses are shown to the left.

If your answer was correct, touch the **Next Question** button to continue. If your answer was wrong you will be asked to try again. To try again, touch the answer you think is correct then touch **OK**. If you do not wish to try again, touch the **Next Question** button to continue.

Once you have completed the three practice questions, you will need to touch the **Start Test** button which will appear on the screen.

PART 1 THE ACTUAL TEST

Once you progress to the actual questions in Part 1, you will be presented with 15 test questions. These are randomly selected from a large pool of questions. Remember, you can answer a question or skip it and you can change your answer before you touch the OK button.

There is no feedback after each test question. When one question has finished the test will go on to the next, until all 15 questions have been completed.

At the end you will see a message telling you that you have completed Part 1 as shown in the picture.

You will need to touch the screen to continue to Part 2 of the DQT.

TEST INSTRUCTIONS FOR PART 2

Part 2 of the DQT consists of 10 advanced hazard perception (HP) questions. They are similar to the questions on the HPT that you completed when you got your P2 licence, but are longer and may require you to respond to more than one hazard.

The structure of Part 2 is:

- Instructions.
- Two practice questions.
- Ten test questions.
- Feedback screen which gives you your results for Part 1 **and** Part 2 and advice on how to improve your performance.

You will be shown ten film clips of real traffic situations shot from the driver's seat. You will see what the driver would see and are asked what you would do in each situation. The film clips will be presented to you on the screen one by one.

At the beginning of each film clip you will be told about the traffic situation and will be asked a simple question. You will then be shown some film of this traffic scene. You will need to touch the screen to start the film clip. To help you understand the situation, the film clip will begin as a still shot for three seconds before it starts to run.

In the example on the next page, the text on the screen (and the voice on the optional audio support) might say:

"You are stopped on a two-way street in a 60 km/h speed zone. You wish to turn right. Touch the screen on every occasion that you would go."

In each film clip the dashboard shows the speed at which you are travelling and also whether or not the indicators are operating.

There is also a sound button in the bottom left of the screen which turns the sound off or on during the test. You can use it at any time if you have arranged to use headphones. When it is on, you will hear the words which are written on the screen.

Typical scene from the DQT.

You **cannot** skip any question in Part 2 of the test.

You will only be allowed to see Part 2 (HP) items once and will not be able to change your response to any item. This is just like real driving where you only get one chance to respond to a driving situation and must deal with it when it occurs.

To respond to each Part 2 (HP) question you will need to touch the screen whenever you think a response is required (eg slowing down, crossing/not crossing an intersection). Unlike the Hazard Perception Test (which you passed some time ago), you may need to touch the screen more than once during each film clip.

However, you only need to touch the screen **once** for each hazard that you see. For example, if there are three hazards in a particular question you'd need to touch the screen three times – once for each hazard. Similarly, in a question when you are standing at an intersection waiting to turn right, you need to touch the screen only **once** for **each** safe gap that you would go. Further information and examples on how to respond to hazard perception questions are available on RMS website (www.rms.nsw.gov.au/dqt.htm).

If you think that you cannot or should not take any action as it would be unsafe, or if you don't think you need to take any particular action to stay safe, you **should not** touch the screen. Just like when you are driving on a real road, you may be shown situations where it would be unsafe to take an action such as turning or overtaking or where there is no need to take any particular action such as slowing down. Therefore, you need to be able to decide when you can or should take an action, when it would be safer to do nothing and when no action is required to stay safe.

Remember, in some traffic situations (film clips), the correct response is NOT to touch the screen at all, while in others the correct response is to touch the screen once or more than once where appropriate.

If you touch the screen you will hear a 'dong' sound and the picture will flash briefly. However, the film clip will continue to run (it will NOT slow down or stop when you touch the screen) and you must look out for more hazards and opportunities to take the same action.

If you **do not** touch the screen, the clip will continue to play and you will not hear any 'dong' sound or see the screen flash.

After each film clip in Part 2 of the test you will need to touch the **Next Question** button to move on to the next item.

PRACTICE QUESTIONS FOR PART 2

To help you tackle the actual test questions in Part 2, you will be shown two practice questions. They work just like the real test questions except that after each one you get feedback about your response and the chance to repeat it.

You will be told if your response was good, could have been better or was unsafe. Unsafe means that you would have crashed in real life. If your response was unsafe or needs improvement, you will be given the chance to repeat the question. Remember, there are no repeats or skips in the real Part 2 of the test so make sure you use the practice questions effectively.

Once you have completed the practice questions, you will be asked to touch the screen to start the real test items.

PART 2 THE ACTUAL TEST

Once you start the actual test for Part 2 (HP), you will be presented with 10 test questions. These are randomly selected from a large pool of questions. You will only be allowed to see each one once and will not be able to change your response to any question.

There is no feedback after each test question. When one question has finished the test will progress to the next one until all 10 have been completed.

THE RESULTS AND FEEDBACK SCREEN

When all 10 questions in Part 2 have been completed, a screen will appear advising you that you have finished the test and to call a supervisor. The supervisor will then bring up the result screen which will tell you if you passed or not. You will not receive an individual score for the test.

If you pass, you will also get feedback on areas that should be improved (eg selecting safe gaps when turning at intersections). You will also be directed to the sections of this handbook (and RMS website) that may help you improve your skills.

If you fail, you will get specific feedback on areas that need to be improved before re-taking the DQT (eg selecting safe following distance when travelling behind other vehicles). You will also be directed to the sections of this handbook (and RMS website) that will help you to improve your skills. A print-out of your results and feedback screen can be obtained from the registry or agency staff. This may help you to prepare for your next DQT.

IF YOU FAIL THE DQT

If you fail the DQT, you may resit the test again anytime you are ready. However, remember that a fee will be charged each time you attempt the test. **It is suggested that you prepare carefully before resitting.** Use this handbook and the DQT website to help you. You should pay special attention to the areas mentioned on the results and feedback screens. You may also need to get more on-road practice before attempting the test again. Don't be in a hurry. Make sure you are ready before taking the test again.

CHEATING

It should be noted that you must not be assisted during the DQT. The DQT is a test for individual drivers to see if they are experienced enough to graduate to a full NSW licence.

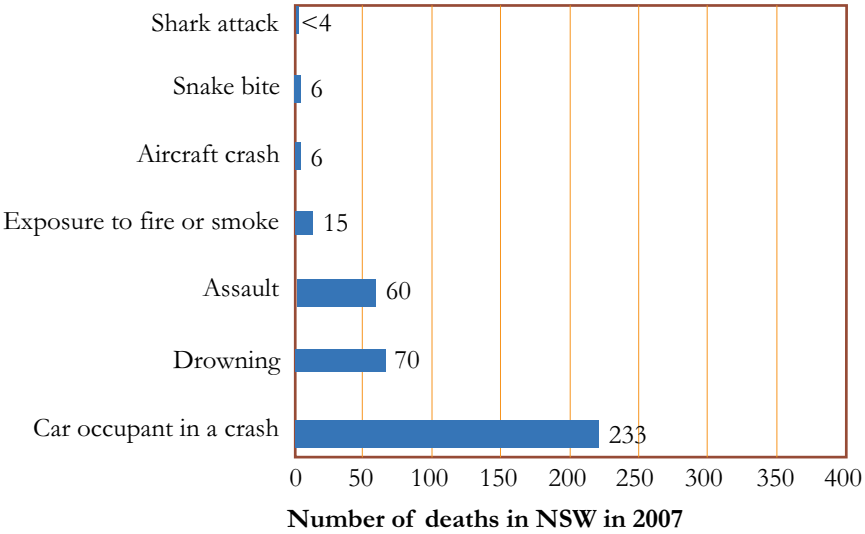
All instances of cheating or attempts to cheat will be treated seriously. Penalties, including prosecution, may be imposed on those who accept help or provide help to DQT candidates during the test. At the very least, you will not be allowed to resit the test for six weeks.

Understanding driving risk

Risk in life in general

Almost everything people do in life carries some risk. Going to work, school or playing sport all involve some risk.

Driving a car is one of the riskiest things that people do on an everyday basis. The graph shows that the risk of being killed in a car is greater than being killed in a plane crash or a fire, or being eaten by a shark. Yet people are probably more worried about swimming at the beach than driving their car.



Source (1,2)

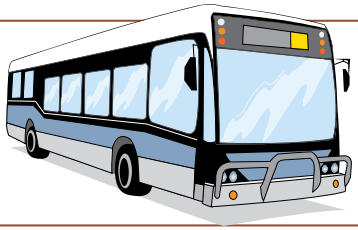
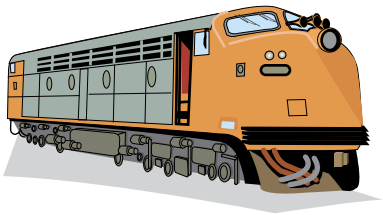
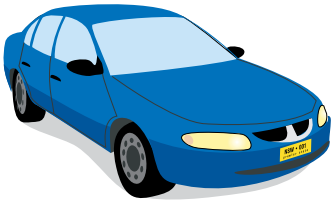
UNDERSTANDING AND MANAGING YOUR DRIVING RISK

While some risks are beyond our control, there are others that we can do something about. Knowing the risks you face when you use the roads can help reduce the chances that you will be killed or injured. This knowledge may even help reduce the risk for other people, including your friends and family.

For example, the chart on the next page shows, it is much safer to travel by bus or train than by car. So you do have some options to make your travel safer.

But many people, however, prefer to drive a car to work, to the shops, or to almost anywhere. While it may be more risky than taking the bus or train, it is often faster and more convenient.

FATALITIES PER PASSENGER DISTANCE TRAVELLED
RELATIVE TO CAR OCCUPANT

Mode of travel	Fatality risk relative to car passenger/occupant
	0.20 (five times lower)
	0.20 (five times lower)
	1

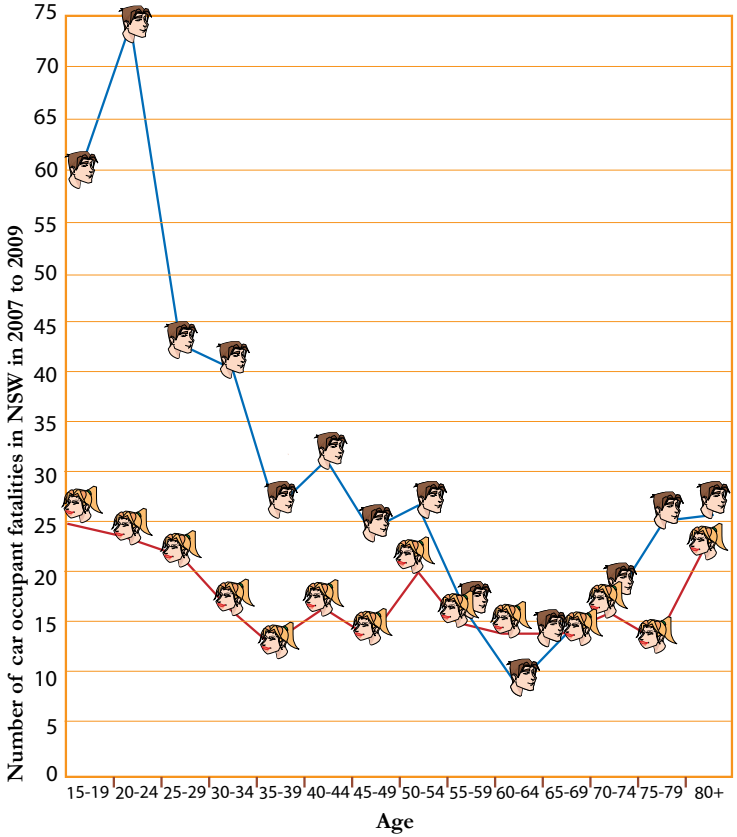
Source (1,3)

DRIVER CRASH RISK BY AGE, EXPERIENCE AND GENDER

As a P2 driver about to seek a full licence, the risks you face are a lot lower than when you first started out with a P1 licence. You have survived the most dangerous period – the first six months of solo driving. But there is still a long way to go and a lot more to learn.

The next graph shows the number of car occupants killed in NSW by age, gender and experience. Although you are moving down the risk curve towards the bottom, you are not there yet.

Male drivers are at greater risk than females. This is partly because they drive up to twice as many kilometres in a year than females, but also because males are often more willing to take risks when they drive. This leads to more males being killed or injured – a sobering thought if you are a man. But women still get killed and are injured as drivers.



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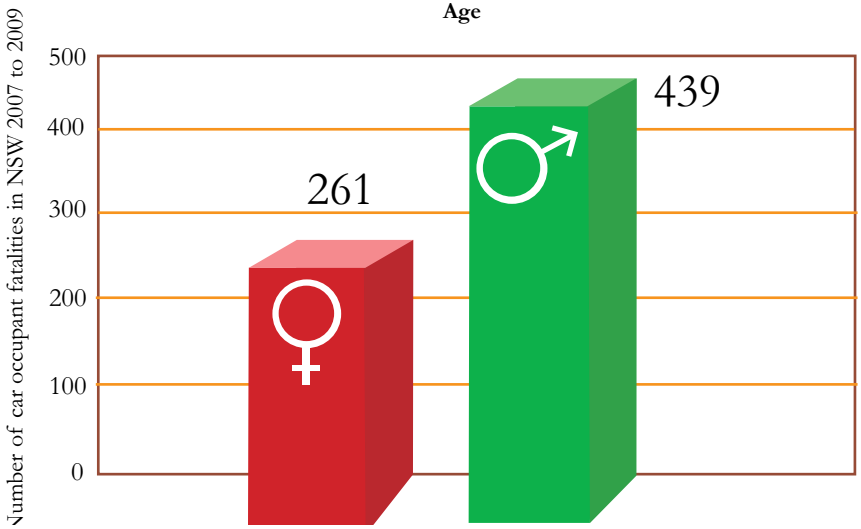


Source (1)

HELPING YOU UNDERSTAND AND MANAGE DRIVING RISK

The information in section 2 of this handbook is about helping you lower your risk as a driver.

It will help you understand the risks you face, why drivers do some of the things they do and what can be done to lower the risk of crashing. You have a responsibility to yourself and other road users to become a low risk driver.

KEY POINTS SUMMARY: UNDERSTANDING RISK

- Almost all activities in life carry some risk of death or injury.
- Driving a car is one of the riskiest things people do everyday.
- Male drivers generally have a higher risk than female drivers as males drive more and may take more risks.
- Younger, less experienced drivers carry more risk than older more experienced ones.
- Drivers can manage their risk.

The consequences of road crashes

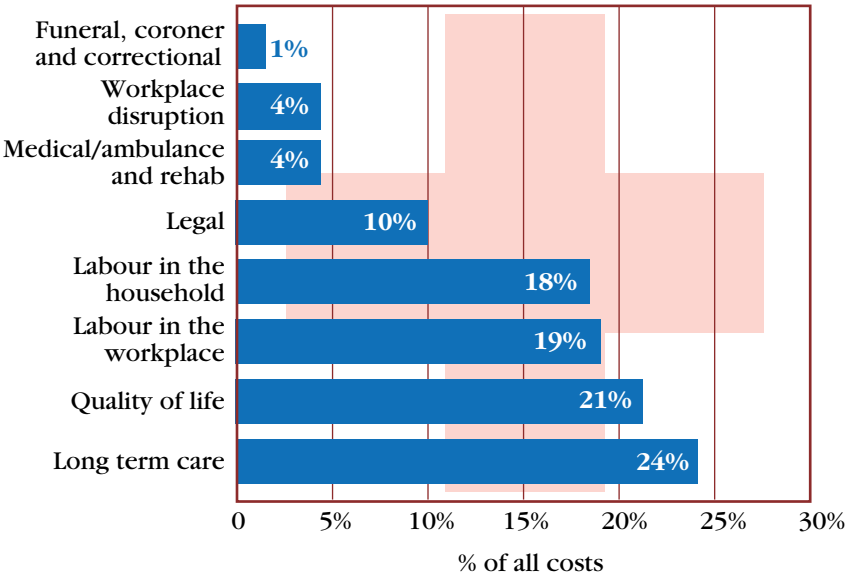
Almost every day the news media carry stories and pictures about road crashes, deaths and injuries. But most drivers don't think too much about the risks and the injury costs of driving a vehicle when they get into the driver's seat.

Now that you've been driving for about three years and know a bit more about it, you might like to reflect on the adverse consequences of being involved in a crash for you, your family, your friends and the broader community. The effects of road crashes continue long after the TV news stories are gone.

Road crashes in Australia cost the community – including you – a lot of money every year. For example, the average cost of:

- A fatality is about $5.8 million.
- A serious injury (requiring hospital treatment) is $471,000.
- A minor injury is about $82,000.
- A property damage only crash is worth about $8,000.

These are big numbers and perhaps hard to get your mind around, but here is the bottom line – in terms of the human cost, the big-ticket items are not the cost of picking you up off the road and taking you to hospital (or arranging your funeral). As the graph shows, most costs relate to the cost of long-term care for you or the other injured people (24 per cent).



Source (4)

Loss of quality of life – not being able to do the things you want to do or could do before the crash – is the next biggest cost at 21 per cent. Add to that the cost of lost ability to work (and earn money) and you start to see how the effects of a crash ripple out into your life and the lives of others.

Funeral costs are relatively cheap in comparison to the costs of being permanently disabled and not being able to work, play sport or take care of yourself. Research shows that a lot of young drivers are more worried about being maimed, disfigured or disabled rather than dying.

For all crashes reported to the police, only about one in every 50 involves a fatality in NSW. While some of those injured will make a full recovery, many will never be the same again – physically or mentally. Road crashes cost a lot more than just money and affect more than just the person who is killed or injured. Perhaps we all need to think about this when we get behind the wheel of a vehicle.

KEY POINTS SUMMARY: CONSEQUENCES OF ROAD CRASHES

- Road crashes cost the community a lot of money.
- Most crash victims don't die – only about one in 60 in NSW. – but many live with the physical and mental consequences for the rest of their lives.
- Most costs goes to the long term care of injured people at 24 per cent.
- Loss of quality of life is the next biggest cost at 21 per cent.

Risk management – Who you are as a driver and a person

What you do determines the risk you carry as a driver. For example, speeding and running red lights increase your crash risk – and the risk of being booked by the police! As driving is a self-paced task, you can determine a lot of your own risk level by what you do (and don't do).

Some driving risk results from:

- Who you are.
- What you think.
- How you look at the world.

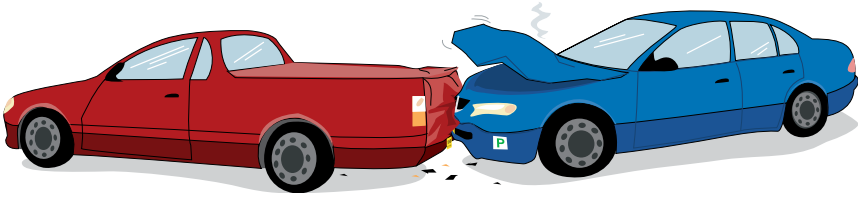
The rest comes from external sources (eg road conditions, weather and the actions or inaction of other road users).

This section looks at some of the factors that may determine risk for you and other drivers. You can use this information to help manage your risk as a driver.

CONFIDENCE AND OVERCONFIDENCE

Most of us like to be confident about our skills and abilities regardless of what we do.

If you get sick you are usually confident that you'll get better. Most of the time you are confident that you can handle life today, next week and next year. When you do risky or exciting things like skiing or bungee jumping, you like to feel confident that everything will be OK.

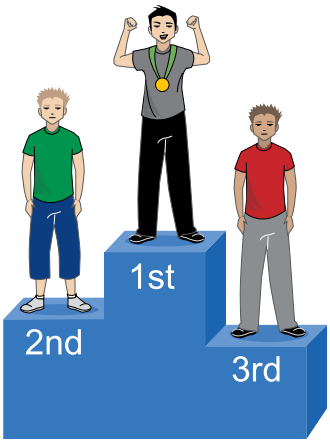


But with driving, confidence can work against you. Research shows that while most drivers are pretty confident about their skill, the most confident drivers are usually the least experienced. This can lead to overconfidence and a feeling that you might be a better driver than you really are.

Overconfidence contributes to many crashes for drivers in their first five years of driving. It makes you underestimate the risk of negative outcomes (eg being involved in a crash, getting caught for speeding or being killed or injured in a road crash). Overconfidence is boosted every time you drive over the speed limit and don't get caught. This makes it hard to counteract. You may feel that you can 'handle it' and that you are a better driver than other people.

Because crashes are quite rare for individual drivers, you start to think that it won't happen to you. Most of the time you will be right. Only about one in 50 NSW drivers are involved in an injury crash reported to police each year.

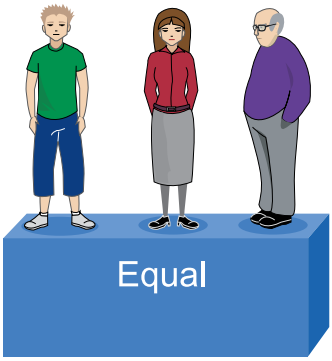
But did you know that your risk of getting booked by the police is much, much greater? In NSW, the risk of being booked and issued with a ticket for a traffic offence is more than 1000 times greater than being killed in a crash. So if you drive in an unsafe manner, you might not crash, you might not get killed or injured, but you are likely to get booked, pay heavy fines, incur demerit points or lose your licence.



Source (5)

HOW GOOD A DRIVER DO YOU THINK YOU ARE?

Research shows that most male drivers rate themselves as better than other drivers of the same age and experience. Young male drivers tend to rate themselves as pretty good. This helps boost overconfidence and results in more male drivers, particularly those under 25 years old, being involved in crashes.



Source (5)

Women, on the other hand, are more likely to rate themselves as no better than other drivers and even to admit that others may be better than they are. Experts think that this helps reduce overconfidence and may help reduce crash involvement for female drivers.

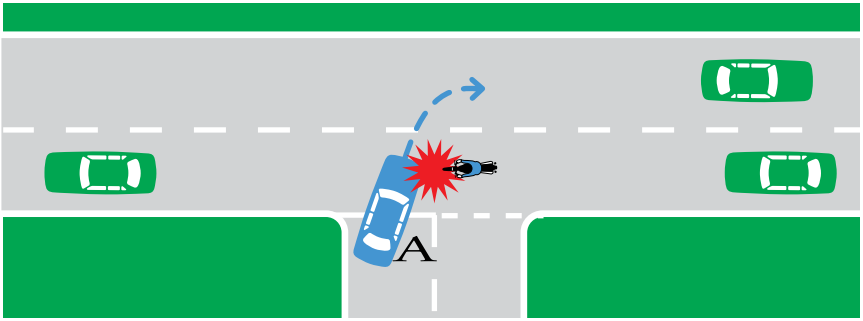
KEY POINTS SUMMARY: RISK MANAGEMENT

- Confidence is OK, but overconfidence can make you believe that you are a better driver than you really are.
- Over confidence makes you underestimate the risk of negative outcomes such as crashes or being injured or killed.
- Male drivers are more likely to rate themselves as better than others – this may encourage over confidence and increased crash risk.
- The risk of getting booked for a traffic offence is more than 1000 times greater than being killed in a crash.

Causes of crashes and acceptance of mistakes

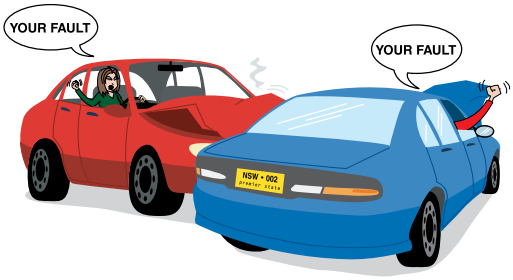
Most people don't like to admit that they are wrong or that they make mistakes. Maybe this is why many drivers involved in crashes don't want to admit that they might have done the wrong thing.

Research shows that drivers tend to attribute all or most of the blame for a crash to the other driver, the road, the weather, but little to themselves. For example, the picture below shows a sketch of an actual road crash where a driver ran into a motorcyclist. The text below the picture quotes what the driver said to the police about the crash. As you can see the driver blamed the motorcyclist even though it wasn't the rider's fault.



Source (6)

"Due to the damage to my car I think it was going quite fast. I reckon he could have missed me anyway, if he's an experienced rider." – Driver of the blue car labelled A.



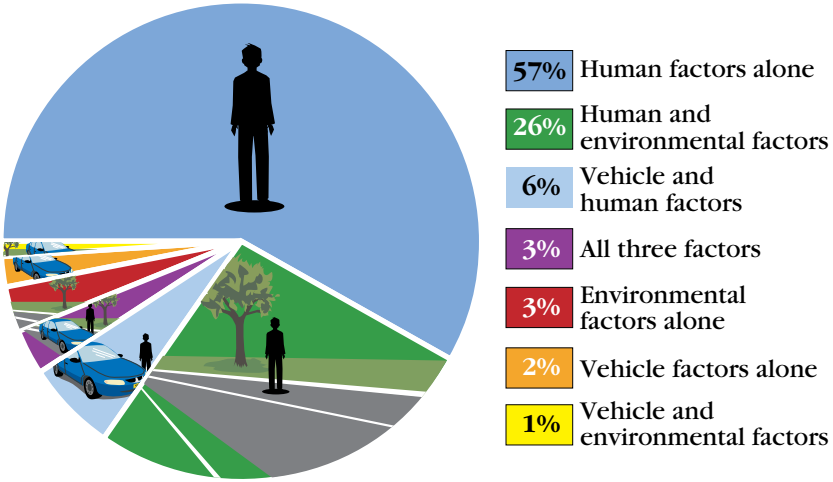
And when people make insurance claims after crashes, they generally avoid taking the blame.

The experts call this 'external attribution' – where you attribute blame or the reason that things happen to things outside of yourself. As you might have guessed, 'internal attribution' is when you assign blame or the reason that things happen to yourself. The healthiest situation is where you can recognise the things that are due to you and what you do and the things that aren't. Research suggests that people who can honestly recognise what is their fault and what is others' are safer drivers. It's tough to accept that some things are down to you.

DRIVERS ARE PEOPLE AND PEOPLE MAKE MISTAKES

The truth is that all drivers make mistakes – fortunately, not all at the same time. It is a part of being human. No one can do anything perfectly all the time. Even champion basketball players don't score goals all the time and professional golfers sometimes miss an easy putt.

Most crashes are due to human error. People make mistakes when they drive. Mistakes like failing to see another car at an intersection or changing lanes without looking. You could probably make a long list of errors that other drivers make. Most of the time your vehicle doesn't develop a fault and crash by itself. When all the causes of road crashes are considered, you get a pie chart like the one shown. The biggest chunk relates to human error on its own and if you add all the sections with human involvement together, you get to more than 90 per cent.



Source (7)

Note: These percentages do not add to 100 per cent due to rounding.

Crash research shows that all drivers, even you, can and will make mistakes. It is estimated that drivers make a mistake that:

- Could lead to a crash about every three kilometres.
- Leads to a near crash about every 800 kilometres.
- Leads to a crash about every 980,000 kilometres.

Understanding that you can and will make mistakes as a driver is important. This can help you to recognise that driving can be risky without having to take deliberate risks.

It can also allow you to take action to minimise your risk as a driver and protect yourself and others from crashes and their consequences.

KEY POINTS SUMMARY: CAUSES OF CRASHES AND ACCEPTANCE OF MISTAKES

- Many drivers involved in crashes don't want to admit that they might have done the wrong thing.
- 'External attribution' is where you blame other things or other people for what happens.
- 'Internal attribution' is when you accept blame or the reason that things happen to yourself.
- The best situation is where you can accept the things that are down to you.

Motivation and driving behaviour

You have probably noticed that your motivation to do things such as going out with friends is different to your motivation for cleaning the house. You are probably more interested in enjoyable things that make you feel good or those that give you a feeling of achievement.

Motivation varies depending on your mood and how important or attractive something is to you. You might be motivated to do things by the 'rush' or thrill you get from extreme sports, by making money, by saving time or even from love. What motivates you may not be of any interest to someone else and may not be the same all the time.

Motivation also affects how you drive. Have you noticed that you are more likely to speed and perhaps take a few risks when you are running late for an important appointment? But you probably wouldn't drive the same way if you were out for a leisurely drive on the weekend.

Research shows that drivers who feel pressured by time or deadlines are more likely to speed and take risks. Even people who normally drive carefully may do things that are dangerous. They will even justify this to themselves and others as OK or necessary – even to the police when caught for speeding.

Young male drivers are more likely than women to let their emotions dictate how they drive. For example, they are more likely to jump in the car and drive around when emotionally upset. They do this to 'let off steam'. But they are also more likely to speed and drive erratically or aggressively in the process. You may know someone who does this.

You may also know people who are motivated to drive fast and take deliberate risks to get a thrill or a buzz or just to relieve boredom. Research shows that they are involved in more crashes than other drivers. They are also more likely to get booked by the police. It is tragic if one driver's motivation for a few thrills leads to death or injury to themselves or someone else. This issue of risk taking is covered in more detail in the next section of the handbook.

For most people, driving is mainly about getting from A to B. Most people are not primarily motivated by safety when they drive. They just want to get somewhere as quickly as possible. But equally, no one wants to die, get hurt or get booked in the process.

You can either be a slave to your motivation when you drive or try to understand it and take control to minimise risk for yourself and other road users. It is not easy, but realising that your motivation may affect how safely you drive is an important first step.

KEY POINTS SUMMARY: MOTIVATION AND DRIVING

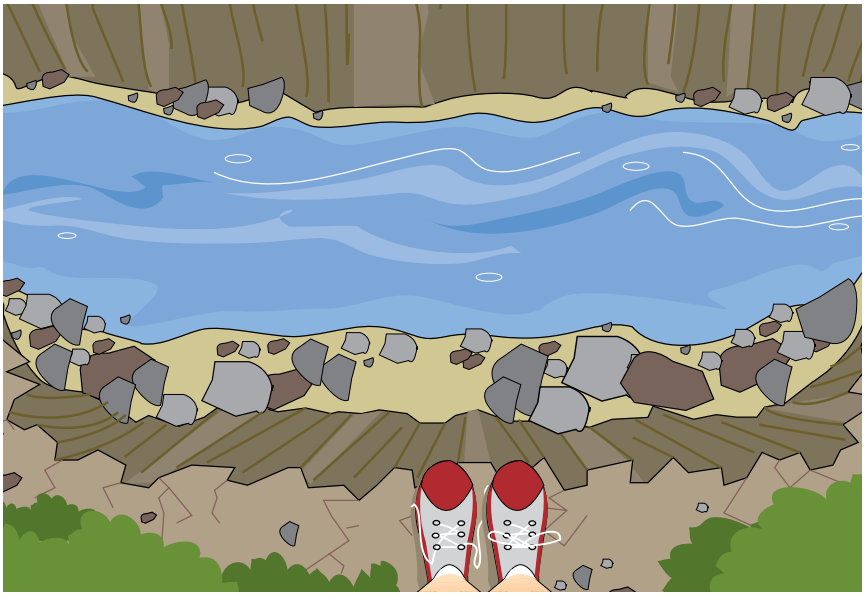
- Motivation varies across people and across tasks – this applies to driving too.
- Drivers who feel pressured by time or deadlines are more likely to speed and take risks to get from A to B quickly – Even people who normally drive more carefully may do things that are dangerous.
- Young male drivers are more likely than women to let their emotions dictate how they drive.
- Some people are motivated to drive fast and take deliberate risks to get a thrill or a buzz or just relieve boredom. Their crash risk is much higher than other drivers' and they are more likely to get booked by the police.
- Driving is motivated mainly by the desire to get from A to B as quickly as possible, but no one wants to die, get hurt or get booked in the process.
- You need to recognise that motivation affects how you drive.

Risk taking and driving

RISK AND SENSATION SEEKING

As discussed earlier in this handbook (see section 2, **'Understanding driving risk', 'Risk in life in general'**), risk is a part of life. Some risks you can avoid and others you can only minimise.

We all vary in the amount of risk that we are willing to accept and in what we see as risky. Some people believe that there is enough risk in the world without going looking for more. Others have a need for the thrills and sensations that come from taking risks. What about you? Are you someone who needs a bit of risk, sensation and daring in your life?



Here is a chance to get a bit of an idea about the sort of risk taker you are. Go to RMS website (www.rms.nsw.gov.au/dqt.htm) then to the link entitled **'Sensation Seeking Scale'** (SSS). Take the short SSS quiz and look at your score. If you do it honestly, this will give you an idea of how much of a need for thrills and risk you have as a person. You might like to get your friends, and even your parents, to try it and compare scores. If you are younger and male, you'll probably get a higher score than females and perhaps higher than older men. Men under 26 years generally have the highest scores.

RISK TAKING, SENSATION SEEKING AND DRIVING

But what does this mean for driving? Well, research shows that high scores on the SSS (ie the need for thrills and sensation) are associated with greater risk taking when driving and higher risk of crashing or getting booked for unsafe driving (eg speeding). Relative to those with low SSS scores, those with high scores were more likely to:

- Drive aggressively.
- Exceed speed limits.
- Not wear seat belts.
- Drink and drive.
- Believe that they were less likely to get caught by police.

Drivers with higher SSS scores are more likely to be male and seem to be more willing to take risks when driving and may get into trouble as a result. While the SSS is only a guide, it does give an indication of which drivers may present greater risks to themselves and others when they drive. So, how was your score on the SSS? Are you more likely or less likely to take risks when you drive?

Even if you got a higher SSS score, all is not lost. It gives you the opportunity for a bit of self-awareness – you may be more likely to speed or do other risky things when you drive. This knowledge also gives you the opportunity to channel a need for thrills into other activities rather than driving on the road (eg skydiving, bungee jumping etc). It also allows you the opportunity to adopt a lower risk approach to driving on the road.

This is all part of managing your risk in life and when you drive. Risk taking may be OK in extreme sports and adventure-based activities, but not on the road. As noted in the section **'Understanding and managing your driving risk'** at the beginning of section 2. Everyday driving is at enough risk without the need to add to it.

HIGH RISK DRIVING BEHAVIOUR

One of the most common risky driving behaviours is exceeding the speed limit. How risky this can be for you and other road users is discussed in more detail in Part 3 of the handbook see section entitled **'Controlling your speed'**, in part 3 Hazard Perception.

Other risky behaviours include 'tailgating' – driving too close to the vehicle in front. Some drivers do this because they just don't know that they are too close while others do it to annoy or threaten other drivers. Either way, it is illegal and greatly increases the chances of a crash.

Running red lights is another high risk behaviour that some drivers engage in. It may seem to save them a few precious seconds, but also greatly increases the risk of a collision with another vehicle, pedestrian or cyclist. If you find that you are regularly driving through red lights there is something wrong with the way you drive. It is only a matter of time before such behaviour leads to being booked, or worse, being involved in a crash that will be your fault.

Car running a red light.

All drivers share the road with other road users. It is irresponsible to take risks that increase the chances of killing or injuring other people. If you want to take risks don't do it on the road. There are lots of other ways to get a buzz.

Remember, NSW law is tough on people who drive in a negligent or careless manner which causes injury or death. Negligent driving could see you imprisoned for up to 18 months and dangerous driving for between seven and 10 years. It is just not worth it.

AGGRESSIVE DRIVING BEHAVIOUR

Some people drive aggressively because they want to take risks or because they are aggressive people. There is an old saying that 'people drive as they live'. If someone is aggressive in life in general, they are likely to be aggressive on the road.

However, some otherwise calm and sensible people sometimes become aggressive to get back at another driver whom they think has wronged them in some way (eg cut them off in traffic).

This behaviour is often called 'road rage', but it is really just retaliation by one driver for what they see as another's provocation. Some drivers get upset and frustrated by life's everyday pressures and stresses and traffic congestion doesn't help.

It may be understandable, but it is not acceptable as it puts you and others at risk.

If you threaten other people, don't be surprised to find the police on your doorstep. Assault and threatening behaviour are offences in NSW. It is no defence that you threatened or assaulted someone for something they allegedly did in traffic. Equally, if someone threatens or assaults you when you are driving, you should report it to the police. There is no room for aggression and violence on the road. Driving is hazardous enough without adding more risk.

If you stop and think about it, we all make mistakes as drivers. On occasion, you might see yourself as the victim of someone else's bad driving behaviour and want to react to it, but it could be the reverse on another day. This is worth remembering.

KEY POINTS SUMMARY: RISK TAKING AND DRIVING

- People vary in their willingness or need to take risks in life and when they drive.
- Drivers with high sensation seeking scale (SSS) scores are mostly male and may be more willing to take risks when driving and be at greater crash risk.
- Risk taking may be OK in other activities but not when driving on the road.
- Risk taking on the road is irresponsible.
- All drivers make mistakes at some time, most of them unintentional.
- Aggressive driving, including retaliating to the bad driving of others, is dangerous and increases the chance of a crash – it may also get you into trouble with the police.
- Negligent driving causing injury or death carries a prison term of up to 18 months.
- Dangerous driving causing injury or death carries a prison term of up to 10 years.

Alcohol and driving

Alcohol is still a major contributor to road crashes in NSW. Alcohol is a contributing factor in about 20 per cent of fatal crashes and five per cent of those causing injury. For drivers with a positive blood alcohol concentration (BAC), more than half of those killed have a BAC of 0.15 or more – three times the legal limit of 0.05 for full licence holders.

As a P2 driver you are restricted to a BAC limit of zero. When you graduate to a full NSW licence your allowable BAC limit will increase to 0.05. If you are on a zero limit you cannot drink any alcohol when you drive. But on a 0.05 BAC limit, you may be able to drink some alcohol and still stay below the legal limit. This might increase the temptation to drink alcohol, then drive.

Staying below 0.05 is hard as not everyone takes the same number of alcoholic drinks to reach this limit. The chart on the following page shows that your BAC is influenced by whether you are male or female, your body weight and how much alcohol you drink in a given amount of time. Other factors such as your general health and how quickly your body breaks down alcohol will also affect your BAC. For example, if you are not in good health or your liver function is poor, your BAC may be higher than shown. A more extensive BAC by body weight and gender information can be found on RMS website (www.rms.nsw.gov.au/dqt.htm).

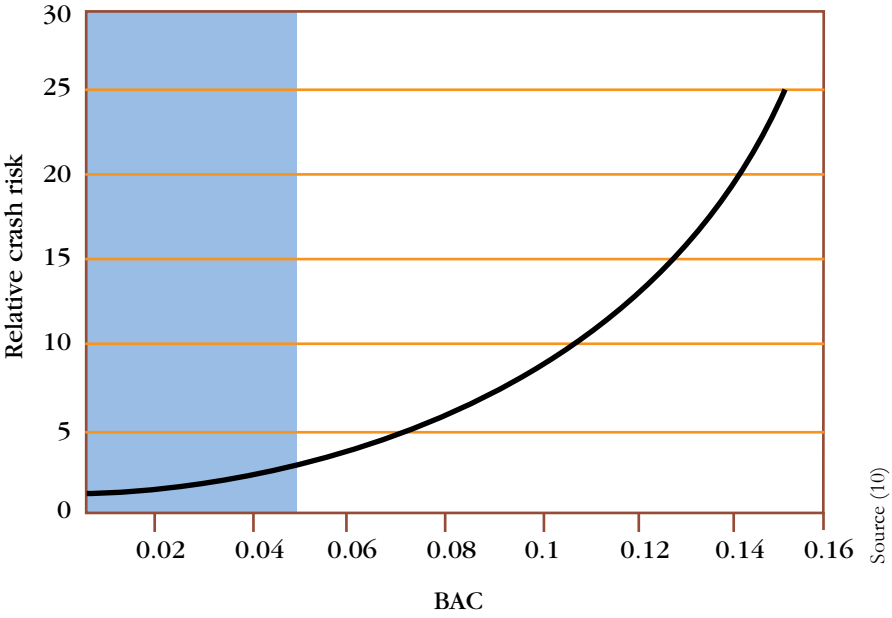
Women and people of both sexes who don't weigh a lot get to higher BACs faster. This is because they have less blood volume to dilute the alcohol and a lesser capacity to break it down in the same amount of time as someone who is male or heavier.

Drinks per hour	72 kilos	63 kilos
		
	Approximate blood alcohol percentage	
	.02	.03
	.05	.07
	.07	.10

Source (9)

It is very hard for an individual driver to know exactly how much they could drink and still stay under the legal limit. **For this reason the best advice for P and full licence drivers is not to drink if you are going to drive and not to drive if you have been drinking.**

Research shows that most P drivers do not suddenly start drinking and driving when they move to a full licence. They may still drink alcohol, but continue to separate drinking and driving. This is sensible as even at a BAC of 0.05 the risk of crashing is about twice that at zero BAC. The next graph shows just how much the risk of crashing goes up as your BAC goes up. It is no wonder that people with high BACs are more involved in crashes and that more of them die.

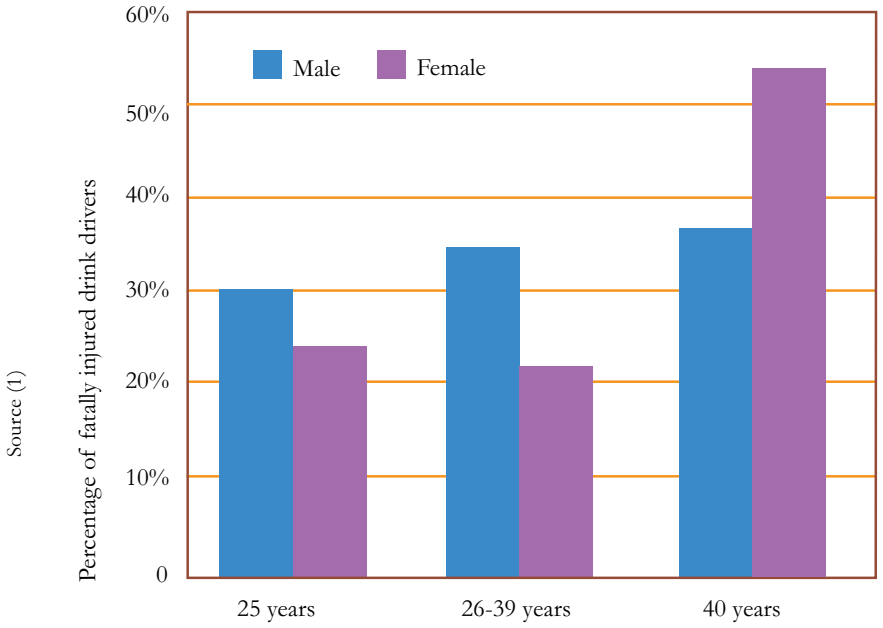


Alcohol reduces your ability to concentrate and to look for and respond to hazards when driving. It also slows your reflexes when you need to take action such as braking. Alcohol-affected drivers are also more likely to exceed speed limits and to disobey – or not even notice – traffic signs and signals. They also have difficulty keeping their vehicle on the road, particularly if it is dark and the road is not straight.

As with other risk factors, younger males are more likely to drink and drive and more likely to be involved in alcohol-related crashes. This is clear in the following graph. Younger males are at much greater risk, probably because they drink more and are more likely to drive after drinking. This is important information for males as it gives them the opportunity to limit what they drink and not drive after drinking. Knowing about the risk helps you manage it.

But women shouldn't be too smug either.

A lot of women drink and drive in NSW and too many are involved in crashes that lead to death or injury, particularly those aged 40 years and older.

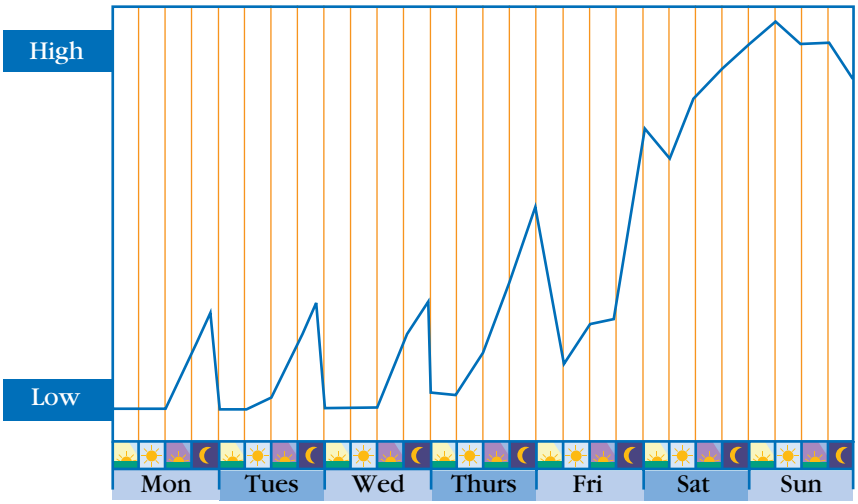


Source (1)

Most crashes involving alcohol happen in what the experts call 'high alcohol hours' – mostly weeknights (particularly Thursday, Friday and Saturday nights) and weekends.

During these hours about 57 per cent of fatal crashes are alcohol-related. Outside of these hours (known as 'low alcohol hours') only 16 per cent of fatal crashes are alcohol-related. So, it is more dangerous to drive on Friday and Saturday nights as other drivers are more likely to be affected by alcohol.

It is worth noting that drivers with alcohol in their blood are not only more likely to crash, but more likely to die if severely injured in a crash. Alcohol has an adverse effect on your body when it is trying to cope with injuries and associated problems such as blood loss. The emergency medical treatment of injured drivers affected by alcohol is also much harder than treating injured drivers with no alcohol in their system. Avoiding driving when you have been drinking not only reduces your risk of crashing but also reduces your chance of dying if you are seriously injured. So staying with a zero BAC when driving gives you an edge. It is the safest BAC for driving regardless of your licence type.



Source (8)

Tips

1. There is a lot of good information on drinking and driving and how to avoid it in the *Road Users' Handbook*. As you may not have looked at this information for several years, you might like to do a bit of revision. You can access the *Road Users' Handbook* on RMS website (www.rms.nsw.gov.au).
2. Some pubs, clubs and other licensed premises in NSW have breath testing machines. You might like to try these if you are out and have been drinking. Remember that they only give you a general indication of your BAC so, if in doubt, don't drive.
3. Use a designated (non-drinking) driver or transport alternatives like taxis, buses and trains.

KEY POINTS SUMMARY: ALCOHOL AND DRIVING

- Alcohol is a contributing factor in about 20 per cent of fatal crashes and five per cent of those causing injury.
- More than half the drivers killed have a BAC of 0.15 or more – three times the legal limit of 0.05 for full licence holders.
- Staying below 0.05 is hard as not everyone takes the same number of alcoholic drinks to reach this limit.
- Women and people of both sexes who don't weigh a lot get to higher BACs faster.
- Men are more likely to drink and drive and more likely to be involved in alcohol-related crashes.
- Alcohol reduces your ability to concentrate and to look for and respond to hazards when driving.
- Alcohol slows your reflexes when you need to take action such as braking.
- Alcohol increases the risk of a crash. Even at a 0.05, crash risk is about twice what it is at zero.
- The safest BAC for driving is zero.
- About 57 per cent of fatal crashes in 'high alcohol hours' are alcohol-related.
- High intake of alcohol occurs mostly weeknights (particularly Thursday and Friday nights) and weekends.
- Drivers with alcohol in their blood are not only more likely to crash, but more likely to die if severely injured in a crash.
- Staying with a zero BAC when driving gives you an edge. It is the safest BAC for driving regardless of your licence type.

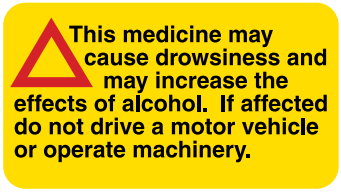
Other drugs and driving

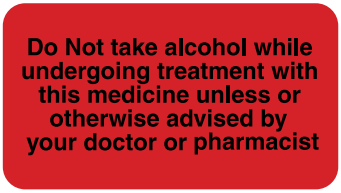
Drugs other than alcohol can affect your ability to drive safely. These include not only illegal drugs like cannabis (marijuana) but also some medications in prescription drugs and over-the-counter medicines that you might buy from a pharmacy or even the supermarket.

Some of the legal drugs and medicines that can affect your ability to drive safely include:

- Some pain killers.
- Medicines for controlling blood pressure, nausea, allergies, inflammations and fungal infections.
- Tranquillisers, sedatives and sleeping pills.
- Some diet pills and cold and flu medicines.

Many medicines or legal drugs that may affect your driving are clearly labelled with warning labels that look like these:





If you are taking any medicines it's worthwhile reading the labels to check for any warnings about driving. If there is any doubt, ask your doctor or pharmacist (chemist) if these medicines affect the ability to drive safely.

If you need to drive but also need to take medicines, ask the doctor or pharmacist if there are any alternatives that you could take that would not affect your driving. But if you are on prescription medicines that may affect your driving, don't stop taking them so that you can drive. Talk to your doctor first.

Many drugs and medicines stay in your system for a long time. This means that it might still affect your driving after you have stopped taking them. Your doctor or pharmacist will be able to give you advice.

Many drugs and medicines interact with each other in a way that might affect your ability to drive safely. For example, drinking alcohol while on some prescription drugs can be dangerous. So read the labels carefully and check with your doctor or pharmacist for advice.

The problem with illegal drugs is that you don't know if they will affect your driving and how they might interact with alcohol or any medicines that you might be taking. There are no warning labels, so the first you know of the effects may be when you crash or the police arrest you for driving under the influence of a drug.

If police suspect that you have been driving under the influence of a drug (from observing your behaviour) they will check for drugs. You can be arrested and taken to a hospital to give samples of your blood and urine. These samples will be tested for drugs such as heroin, cannabis, cocaine, barbiturates, stimulants and tranquillisers. The same procedure happens if you are involved in a crash when driving and thought to have been under the influence of drugs.

If you refuse to give a blood or urine sample you will face the same penalties as a high range drink driving charge. These include heavy fines, loss of licence and even prison terms.

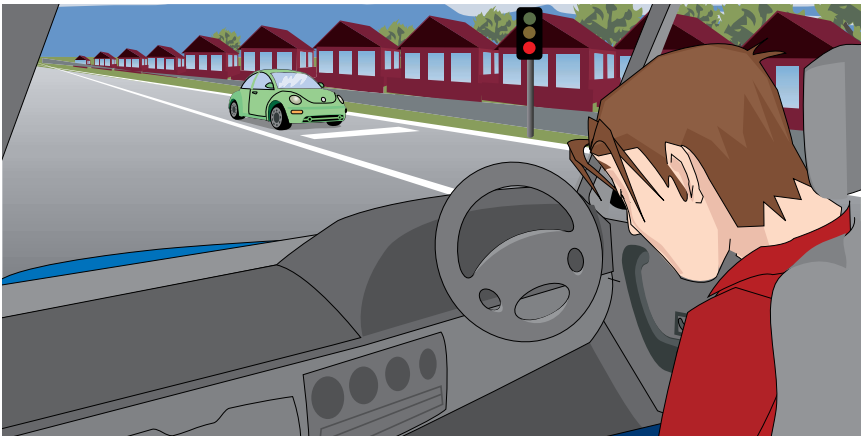
The best way to avoid problems with drugs and driving is to avoid illegal drugs, not mix drugs, medicines or alcohol and to check if any of your legal medicines affect your ability to drive safely.

KEY POINTS SUMMARY: OTHER DRUGS AND DRIVING

- Drugs other than alcohol, including legal medicines and illegal drugs, can affect your ability to drive safely.
- All medicines or legal drugs that may affect your driving are clearly labelled with warning labels.
- Many drugs and medicines interact with each other (and alcohol) in a way that might affect your ability to drive safely.
- Your doctor or pharmacist (chemist) can advise on which medicines affect your ability to drive.
- Illegal drugs carry no warnings and may affect your driving.
- Penalties for driving under the influence of drugs include heavy fines, loss of licence and even prison.

Fatigue and driving

Fatigue is a major contributor to road crashes. It is estimated that fatigue is involved in about 18 per cent of fatal crashes in NSW. This is a major contributor to the NSW road toll. Fatigue refers to the experience of being 'sleepy', 'tired' or 'exhausted'. It has both physiological and a psychological effects on your ability to drive safely.



EFFECTS AND SIGNS OF FATIGUE

Fatigue can severely impair your judgment when driving. No one is immune from fatigue and its effect. Fatigue is particularly dangerous because it reduces your ability to judge your own level of tiredness. While symptoms vary between drivers, here are some of the warning signs of fatigue:

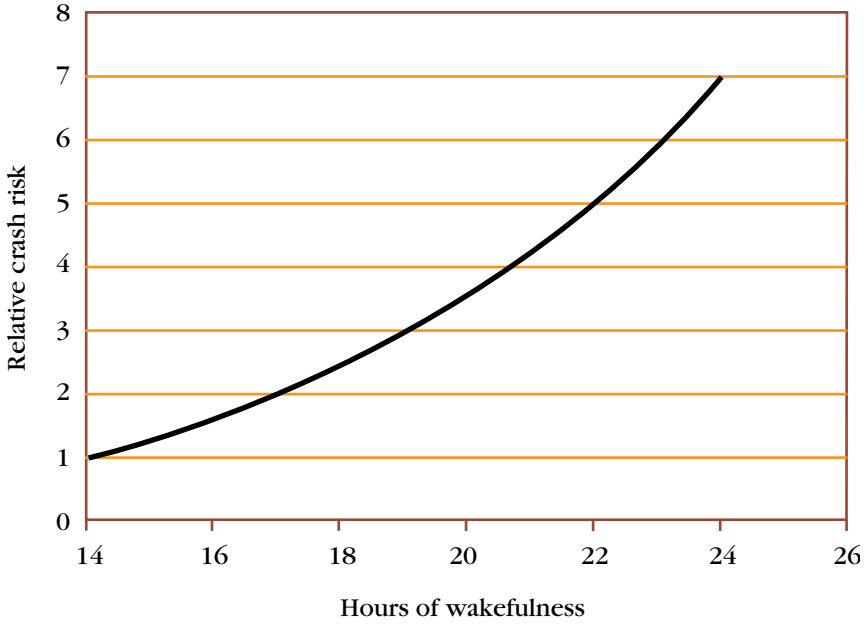
- Loss of concentration.
- Drowsiness.
- Yawning.
- Slow reactions.
- Sore or tired eyes.
- Boredom.
- Feeling irritable and restless.
- Making fewer and larger steering corrections.
- Missing road signs.
- Having difficulty staying in the lane.
- Unintentionally falling asleep for a few seconds or more, and suddenly waking up (microsleeps) – you may not even know you've been asleep and your eyes may not have closed.

FATIGUE AND CRASHES

Most fatigue-related crashes occur on country roads in NSW – about 75 per cent. But fatigue-related crashes also occur in NSW metropolitan areas – about 25 per cent.

High-risk times for fatigue-related crashes are early morning between 4am and 8am and in the afternoon between 12 noon - 2pm particularly on weekends. These times of the day are associated with dips in the body's natural rhythms (which makes us feel sleepy in the early morning and early afternoon hours). In some countries people have a siesta between 12 noon and about 2pm to combat the effects of fatigue and sleepiness. Driving while sleep-deprived – especially late at night, at dawn and in parts of the afternoon can be deadly.

Fatigue operates a bit like alcohol in the way that it increases the risk of crashes. The graph shows how the risk of crashing rises as driver-fatigue increases.



Source (12)

About 76 per cent of drivers involved in fatal fatigue-related crashes are male. This may be due to:

- Men driving more kilometres per year than women.
- Being in jobs that involve more driving.
- Social patterns where men are more likely to do the driving when couples, families or groups are travelling by road.

But remember, you don't have to drive long distances to get fatigued. Working long hours, partying hard and not getting enough sleep can make you fatigued.

FATIGUE AND 'SLEEP DEBT'

Your body requires a certain amount of sleep each night to function effectively. The average amount of sleep a person needs is eight hours. When you reduce the number of hours you sleep you start to accumulate what is called a 'sleep debt'. Sleep debt is the difference between the hours of sleep you need and the hours of sleep you actually get.

For example, if you need eight hours of sleep per night but only get six, you have a sleep debt of two hours. These lost hours of sleep need to be replaced.

When we have sleep debt, our tendency to fall asleep the next day increases. The larger the sleep debt, the stronger the tendency to fall asleep. Sleep debt does not go away by itself. Sleeping is the only way to reduce your sleep debt.

REDUCING THE RISK OF FATIGUE RELATED CRASHES

The only effective way to avoid fatigue is to get plenty of sleep. Fresh air, coffee and loud music won't work.

To reduce the risk of fatigue-related crashes:

- Get plenty of sleep on a regular basis to avoid 'sleep debt'.
- Get a good night's sleep before commencing a long trip.
- Do not drive at times when you would normally be asleep.
- Avoid long drives after work.
- Take regular breaks from driving.
- Share the driving whenever possible.
- Pull over and stop when drowsiness, discomfort or loss of concentration occurs.
- Check if any medicine you are taking may affect your driving.
- Avoid alcohol as this may increase the effects of fatigue.
- Look out for the early signs of fatigue.
- Don't be too proud to take a break, or to let someone else drive.

KEY POINTS SUMMARY: FATIGUE AND DRIVING

- Fatigue refers to the experience of being 'sleepy', 'tired' or 'exhausted'.
- Fatigue can severely impair your judgment when driving.
- Fatigue is involved in about 18 per cent of fatal crashes in NSW.
- Fatigue operates a bit like alcohol in the way it increases the risk of being in a crash.
- High risk times for fatigue-related crashes are early morning between 4am and 8am and in the afternoon between 12 noon and 2pm, particularly on weekends.
- Most drivers involved in fatigue-related crashes are male.
- The only effective way to avoid fatigue is to get plenty of sleep. Fresh air, coffee and loud music won't work.

Tips

1.. There is a lot of good information and advice on the effects of fatigue and ways of minimising the risk of fatigued driving on RMS website (www.rms.nsw.gov.au). You might like to visit the site to learn more.

2. Remember to 'stop, revive, survive' – Take a 15 minute break every two hours when driving.

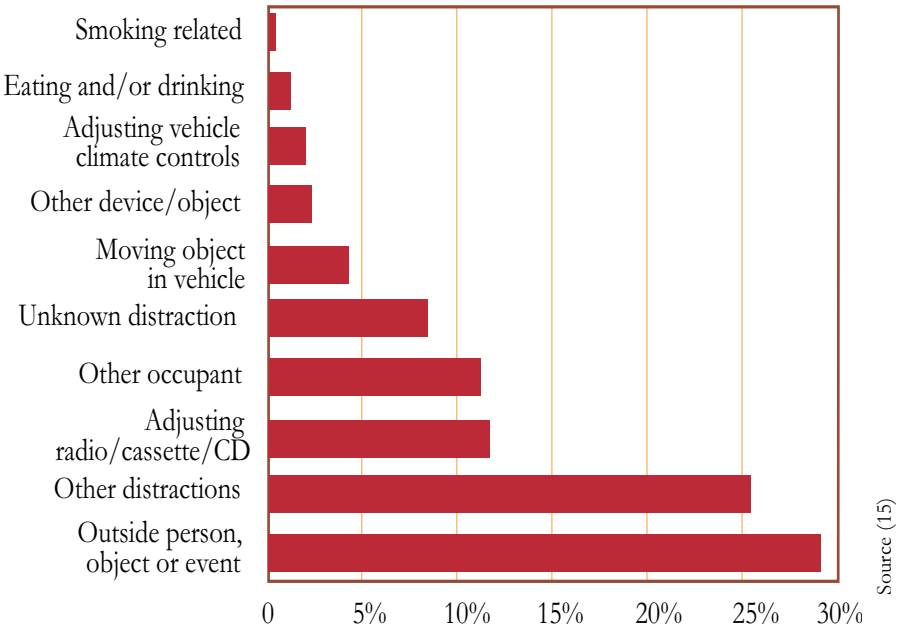
Driving distractions and crash risk

Distractions that divert attention from driving increase your risk of crashing. Recent research suggests that at least six per cent of all crashes involve the driver being distracted by something inside or outside the vehicle.

SOURCES OF DISTRACTIONS THAT LEAD TO CRASHES

So what are the distractions that lead to crashes? Research findings suggest that distractions from outside the vehicle account for about 30 per cent of the distractions that lead to crashes. And distractions from within vehicles account for up to about 36 per cent (the remaining 34 per cent is unknown).

The graph gives you an idea of what some of these distractions are. The two biggest distractions inside the vehicle are other passengers and adjusting the sound system.



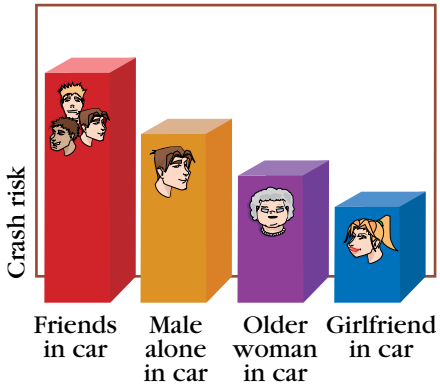
Distribution of distracting activities

How many of these distractions can you relate to? Have you ever had a near miss when adjusting the radio or when someone inside the car says or does something that distracts you?

PASSENGERS AND CRASH RISK

Other passengers can have quite an influence on your driving. Did you know that young drivers have a higher crash risk when travelling with passengers of much the same age than when travelling alone? This is particularly true for young males. But the risk of crashing is reduced for young male drivers when they have an older female passenger (eg their mum) or their girlfriend.

Experts think that young male passengers tend to distract young male drivers by what they say and do in the car. They may even encourage the driver to do risky things such as speeding and driving aggressively.



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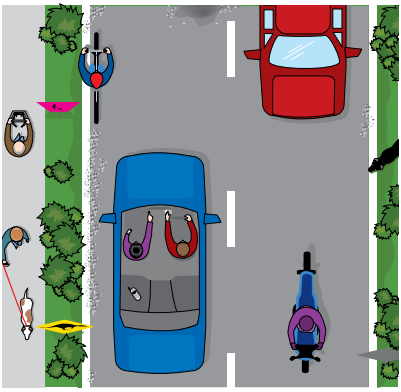


DRIVING TO DISTRACTION

Distractions carry the highest risk when you are trying to do something complicated like turning right in heavy traffic or trying to select a safe gap to cross a busy intersection. You've probably noticed that you sometimes stop talking to passengers when you are trying to do these things or ask them to stop talking to you when you are busy. This is a good thing as it reduces your 'mental load' and reduces the amount of attention you need to give to less important things.

When you are distracted or your attention is divided, you are more likely to make mistakes. This means that you should avoid or minimise distractions when you drive, particularly when you are engaged in complex driving actions.

REDUCING DISTRACTIONS MEANS REDUCING CRASH RISK

While you can't do much about distractions from outside your vehicle when you are driving, you can reduce sources of distraction inside your vehicle. This will help reduce your crash risk. These include simple things like:

- Turning off the radio or stereo, particularly in new or challenging traffic situations.
- Not using your mobile phone when driving – remember it is illegal to use a non-hands free mobile phone when driving.
- Using a hands-free mobile phone can be dangerous in complex traffic situations.
- Collecting loose items inside the vehicle and putting them in a bag or box or in the boot.
- Asking passengers to keep quiet and not distract you.
- Not attempting to adjust the radio or load CDs, particularly in complex traffic situations.

KEY POINTS SUMMARY: DRIVING DISTRACTIONS AND CRASH RISK

- Distractions divert attention from the driving task and increase the risk of crashing.
- At least six per cent of all crashes involve the driver being distracted by something.
- Distractions that happen outside the vehicle account for about 30 per cent of crash-related distractions.
- Distractions that happen inside the vehicle add up to about 36 per cent of crash-related distractions.
- Distractions carry the highest risk when you are trying to do something complicated.
- Reducing distractions inside the vehicle reduces your crash risk.

Managing risk in the driving environment

Human factors alone account for nearly 60 per cent of crashes.

However, as shown in the pie chart the combined contribution of human error and environmental factors accounts for an additional 26 per cent of all the causes of crashes. So being able to deal with changes and challenges in the road environment is an important skill for all drivers to develop and maintain.

- 57% Human factors alone
- 26% Human and environmental factors
- 6% Vehicle and human factors
- 3% All three factors
- 3% Environmental factors alone
- 2% Vehicle factors alone
- 1% Vehicle and environmental factors

Source (7)

Note - these percentages do not add to 100 per cent due to rounding

Adverse conditions like bad roads and bad weather rarely cause crashes on their own – about three per cent of all crashes. Most of the time crashes occur because drivers did not adjust to the changed environment. How many times have you seen drivers continue to drive fast in heavy rain or fog or on narrow, winding roads where they can't see oncoming traffic.

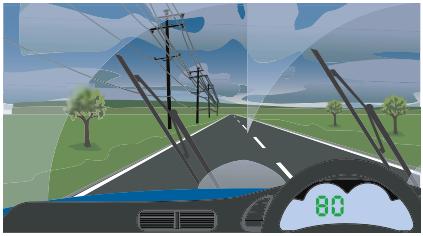
Some environmental hazards such as snow, ice and floods are obvious.

Even a familiar road that you drive everyday presents greater risks in darkness or rain.

NIGHT DRIVING

Driving at night brings particular challenges. For example, drivers are more likely to speed at night as darkness helps mask many of the visual cues to speed and traffic may also be lighter. While most crashes in NSW occur on dry roads in fine weather and in daylight, severe speed-related crashes are common at night. Drivers out on the roads at night are also more likely to have been drinking alcohol.

Often night driving is for recreational purposes – unless you are a truck, bus or emergency vehicle driver. This means that people are more likely to be driving for enjoyment (eg going to clubs, restaurants, pubs and entertainment) in places that they may not be familiar with. They may also have more passengers in their vehicles who may add to other distractions. For young male drivers it also increases the chances of risk taking and aggressive driving.



COPING WITH ADVERSE DRIVING CONDITIONS

As a driver, you can't make it stop raining, make the fog lift, improve the road surface or make it daylight. You can, however, manage your speed to give yourself more time to detect and cope with hazards.

You can also manage the space between your vehicle and others (eg increase the gap between your vehicle and others to the front and sides to give you more time to brake or otherwise respond to hazards that might occur).

Approaching car without headlights.

Approaching car with headlights.

Controlling your speed and the space around your vehicle are the main things that you can do to manage risk in adverse conditions.

You can also make it easier for other road users to see you by driving with your headlights on low beam. The pictures show how much easier it is to see the car with its lights on.

Research suggests that in many situations crashes could be reduced if drivers drove with their headlights on in daytime.

KEY POINTS SUMMARY: MANAGING RISK IN THE DRIVING ENVIRONMENT

- The combined contribution of human error and environmental factors accounts for about 26 per cent of crashes.
- Adverse conditions like bad roads and bad weather rarely cause crashes on their own – about three per cent of all crashes.
- Speeding, drink driving and aggressive/risky driving behaviour are more common at night.
- Controlling your speed and the space around your vehicle are the main things that you can do to manage risk.
- Driving with your headlights on low beam in daytime makes your vehicle easier to see and reduces your crash risk.

Expectancies and the unexpected: Revision

All drivers rely on expectancies (what they expect to happen) when they drive. You expect that pedestrians will not suddenly dash on to the road, that other drivers will stop at red lights, and that drivers will give way to you when facing 'give way' signs. As a driver of about three years experience, you have probably accumulated a range of expectancies based on your experiences with traffic and other road users.

Fully licensed drivers are better at predicting when and where hazards might arise than provisional licence holders. Research shows that this is one of the big differences between P drivers and those with more experience. Full licence holders are better at dealing with the unexpected than novice drivers.

While expectancies are useful a lot of the time and they help you manage the driving task, unexpected events can and will happen to all drivers at some time. Unfortunately, this can lead to crashes when you rely on expectancies alone rather than other safe driving skills like hazard perception skills.

Not all road users obey the road rules all of the time and some road users do not do what you might expect. For example, some road users 'run' red lights and some people cross without looking.

Driver not stopping at a red light.

Pedestrian walking unexpectedly onto the road.

COPING WITH THE UNEXPECTED

There are no magic formulas or techniques for predicting when unexpected hazards will pop up when driving. Suggesting that you expect the unexpected when driving is easy to say, but harder to do.

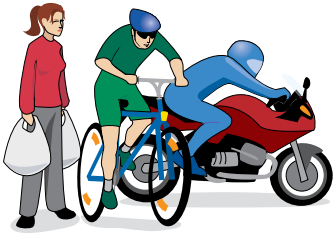
Applying the following skills can help you reduce the risk of something unexpected causing problems for you or other road users:

- Scan well ahead of your car – keep your eyes moving to the front, left and right.
- Look for indicators on other vehicles.
- Observe the head and eye movements of other drivers (eg where are they looking? At you or at something else).
- Look for pedestrians, cyclists and motorcyclists that may be hidden by other vehicles or objects – check your blindspots.
- Give yourself plenty of time to detect and cope with hazards and space to take some action to avoid a crash.
- Be cautious in situations that are new or different (eg roadworks, crash scenes).
- Make your vehicle easier to see – if it is dull, overcast or raining turn on your headlights, even during the day.
- Slowing down is a good precaution as it gives you both time and space to cope with a hazard.

KEY POINTS SUMMARY: EXPECTANCIES AND THE UNEXPECTED

- Drivers often rely on expectancies when they drive.
- Other drivers will make mistakes and do things that you don't expect.
- To cope with the unexpected, use a scanning routine and keep a safe distance from other road users.
- Give yourself plenty of time and space to cope.
- Make your vehicle easier to see – drive with your headlights on.

Looking out for yourself and others



As a driver you have a responsibility to drive safely and to look out for the safety of yourself and other road users. This section provides some revision and new information that may help you in minimising your risk as a driver and that of other road users when interacting with:

- Vulnerable road users – pedestrians, cyclists and motorcyclists.
- Heavy vehicles – trucks and buses.

VULNERABLE ROAD USERS

Pedestrians, cyclists and motorcyclists are vulnerable road users, who have little protection in the event of a collision with a vehicle. A crash that could kill or injure a pedestrian, cyclist or motorcyclist may only leave a scratch or small dent in your car. Each year, about 5,500 pedestrians, cyclists and motorcyclists are injured or killed in NSW.

All drivers are pedestrians at some time of the day or week and some drivers also ride bicycles or motorcycles. So, we are all vulnerable road users at some time and at risk from drivers who don't look out for us.

Watch out for pedestrians.

PEDESTRIANS

Pedestrians can be found almost everywhere when you drive, but particularly around shopping centres, schools, bus stops and intersections. Like drivers, pedestrians can do things that you may not expect like crossing the road without looking or running out from behind parked cars. Children are particularly likely to do this. Young children can run out onto the road very quickly and do not have the road sense of adults.

While older people are experienced road users, they may not be as agile or alert as younger people. This means that they may not look for traffic as carefully and may take longer than expected to cross a road. This may be why people aged 60 years or more are particularly at risk and are over-represented in pedestrian crash statistics.

Pedestrians are a lot smaller than vehicles and can be harder to see. This problem gets worse at night or when it is dull, overcast or raining. Some pedestrians may also be affected by alcohol and behave unpredictably.

So look out for pedestrians, slow down and give them plenty of room when approaching or passing them.

CYCLISTS

Cyclists can be found on roads, footpaths and on bike paths that may cross roads or run beside them. You have probably noticed that many cyclists, including adults, will move readily from the road to the footpath and back again and may cross roads from footpath to footpath. This can make them harder to see at times. Remember that children aged 12 years and under (and adults supervising them) can legally ride on the footpath. But children don't always stick to the footpath and adults don't always ride on the road. So, you need to scan the road and the footpath for cyclists.

Watch out for cyclists.

Give all cyclists plenty of room when approaching or passing them. Slow down or stop if you need to.

Cyclists can generally move faster than pedestrians in a straight line, but will be a lot slower at negotiating intersections and making turns than motor vehicles.

In almost three years of driving, you may have noticed that not all cyclists know or obey the road rules. Cyclists may ride against the traffic, through red traffic lights and without lights at night. This can make their behaviour more unpredictable and harder for drivers to deal with.

MOTORCYCLISTS

Like pedestrians and pedal cyclists, motorcyclists can be hard to see in traffic as they are much smaller than cars. They can seem to blend in to the mass of other traffic on the road. They make up only about three per cent of all vehicles on NSW roads.

Motorcycles can accelerate faster than most cars and fit through small gaps in traffic. Some motorcyclists take advantage of this and will 'share' lanes with other vehicles and weave from lane-to-lane even in heavy traffic. This can make them unpredictable.

Motorcycles can also be 'masked' by larger vehicles. For example, another vehicle can completely hide them and you may not know that they are there. This can make them hard to spot in traffic.

Motorcyclists can be hidden by larger vehicles.

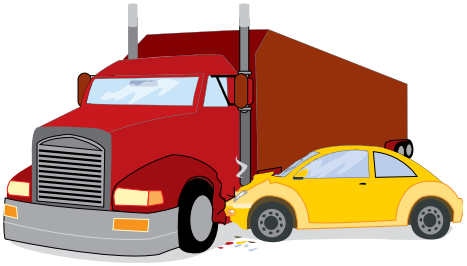
Motorcycles can also fit into the blind spots to the left and right of your car. You may not be able to see them at all without doing a 'head check' (turning your head).

The most common motorcycle collisions are where another vehicle turns across the path of an on coming motorcycle or where a turning motorcycle is struck by a vehicle going straight through. Research shows that in many crashes involving motorcycles the other driver claims not to have seen the motorcyclist. This may be true, but does not help the motorcycle rider.

Riders of motorcycles are about three times more likely to be killed than drivers of other types of vehicle. You can help reduce this risk by looking out for them when you drive.

HEAVY VEHICLES

Trucks and buses are usually easier to see than other vehicles due to their size. They are usually slower than cars, take up more road space and need more room to make turns. It is hard not to notice them.



You would think that other drivers would find it easy to avoid tangling with trucks or buses. But you might be surprised.

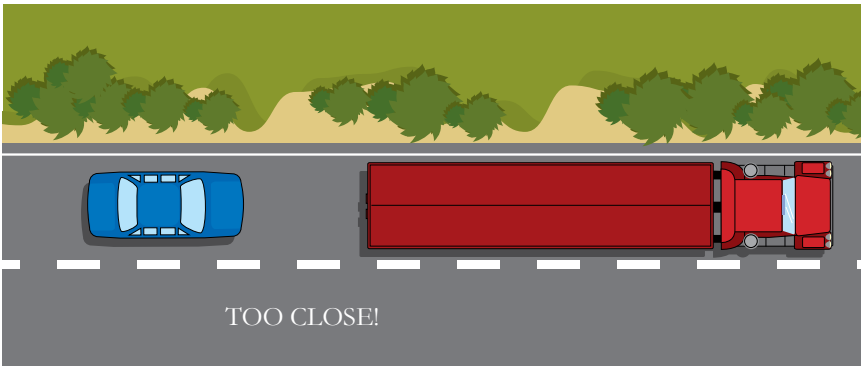
It is often other drivers that get in the way of trucks and buses. For example, other drivers cut in front of trucks slowing down on the approach to traffic lights or drive head on into oncoming trucks when overtaking on highways.

Tragically, crashes involving heavy vehicles, particularly trucks, involve high levels of death and injury. The occupants of an average car stand little chance in a collision with a truck which is 10 to 40 times heavier than their car. The risk of being killed in a crash with a truck are about three times higher than in one involving another car. In a crash with a truck the most likely person to be killed or seriously injured is the car driver – a point worth remembering next time you are on the road.

REDUCING RISK AROUND TRUCKS AND BUSES

To help reduce your crash risk around heavy vehicles, you should:

- Avoid driving in the blind spots of trucks and buses – heavy vehicle drivers rely on their outside mirrors so they may not see vehicles travelling close behind them.
- Avoid travelling close to trucks and buses as this blocks your view of the road and may help hide other road users from you.
- Don't try to compete with them for the same piece of road. Give them plenty of room – particularly when they are making a turn or braking.
- When passing or overtaking a truck or bus remember that it may be many times longer than a car and will, therefore, take longer to overtake or pass.



KEY POINTS SUMMARY: LOOKING OUT FOR YOURSELF AND OTHERS

- Pedestrians, cyclists and motorcyclists are vulnerable road users – they have little protection in the event of a collision with a vehicle.
- People under 16 and older people aged 60 years or more are particularly at risk as pedestrians.
- Look out for pedestrians and cyclists – give them plenty of room when approaching or passing them.
- Motorcycles can be hard to see and can be hidden by other larger vehicles – check your blindspots.
- Riders of motorcycles are three times more likely to be killed than drivers of other types of vehicle.
- In many crashes involving motorcycles the other driver claims not to have seen the motorcyclist.
- The risk of being killed in a crash with a truck are about three times higher than in one involving another car.
- Don't try to compete with trucks and buses. Give them plenty of room – particularly when they are making a turn or braking.

Hazard perception

Revision of hazard perception skills

Figure 1

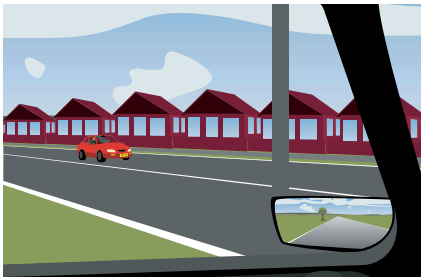


Figure 2

Figure 3

As a driver with about three years or more solo driving experience, you have already developed some hazard perception skills. To get to a P2 licence you had to pass the Hazard Perception Test (HPT) and demonstrate that you had some basic hazard perception skills. When you graduate to a full licence you will leave behind all the P driver restrictions. For this reason it is important that you fully understand what hazard perception skills are and how to apply them. A bit of revision will not only help you pass the DQT, but become a lower risk driver when you shed your P plates for good.

You should remember that the basic hazard perception skills are:

- Keeping a safe distance from other vehicles. (Figure 1)
- Selecting safe gaps when turning, crossing traffic or changing lanes. (Figure 2)
- Scanning for hazards ahead, behind and to the side. (Figure 3)

Part 3 of the handbook provides revision of hazard perception skills and their application.

If you feel you need to brush up on hazard perception skills in more detail (eg if you haven't been driving much in the last two years), you should re-read the Hazard perception handbook and visit the HPT section of RMS website (www.rms.nsw.gov.au/hpt.htm). Remember also that practice on the road is essential to the development and maintenance of sound hazard perception skills.

The HPT section of RMS website also has links to other RMS materials and publications that may help you. For example, if you are a bit rusty on the road rules, you might like to visit RMS website (www.rms.nsw.gov.au) and the *Road User's Handbook* for some revision.

FURTHER DEVELOPMENT OF HAZARD PERCEPTION AND RELATED SKILLS

Apart from revision of basic hazard perception skills, Part 3 will help you to develop these skills further and to help manage your crash risk.

CROSS REFERENCING TO THE DQT SECTION OF RMS WEBSITE

Throughout Part 3 there are cross-references to RMS website (www.rms.nsw.gov.au/dqt.htm). If you have access to the web, you should visit the website to help you learn about hazard perception skills and how to apply them. So use this book and RMS website together to help you develop and practice the advanced hazard perception skills needed to be a safe driver and to help you prepare for the DQT.

www.rms.nsw.gov.au/dqt.htm

KEY POINTS SUMMARY: REVISION OF BASIC HAZARD PERCEPTIONS SKILLS

The three basic hazard perception skills are:

- Keeping a safe distance from other vehicles.
- Selecting safe gaps when turning, crossing traffic or changing lanes.
- Scanning for hazards ahead, behind and to the side.

Keeping a safe distance from other vehicles: revision

THE 'SPACE CUSHION' CONCEPT

The more space that you have between your car and other vehicles the more time you have to detect and respond to hazards that might arise when driving.

To stay safe, you need to manage the space around your car to the front, sides and to the rear. The best way to do this is to imagine an invisible 'space cushion' around your car as shown in the picture.

As you drive down the road, this cushion needs to be maintained by adjusting your speed or position on the road. For example, if the vehicle ahead slows down, you will need to slow down too.

You may also wish to visit the HPT section of RMS website (www.rms.nsw.gov.au/hpt.htm) for an interactive demonstration of safe following distances.

MAINTAINING A 'SPACE CUSHION' TO THE FRONT

Managing the space to the front of your vehicle is the most important part of the 'space cushion' for all drivers. Remember more than a third of new full licence driver crashes involve running into the back of another vehicle (see section entitled **'Five most common crash types for new full licence holders'**, section 1 of this handbook under **'Crash patterns for Provisional and full licence holders in NSW'**).

Maintaining a 'space cushion' to the front also gives you more time to spot other hazards that may arise.

To maintain an adequate 'space cushion' to the front you need to:

- Control your speed to suit the road and traffic conditions.
- Keep a safe following distance between your car and the vehicle in front.

These topic areas are revised briefly in the following paragraphs. Some new information on the risks of speeding is also covered, together with some important new information on following distances.

Controlling your speed: Revision and some new information

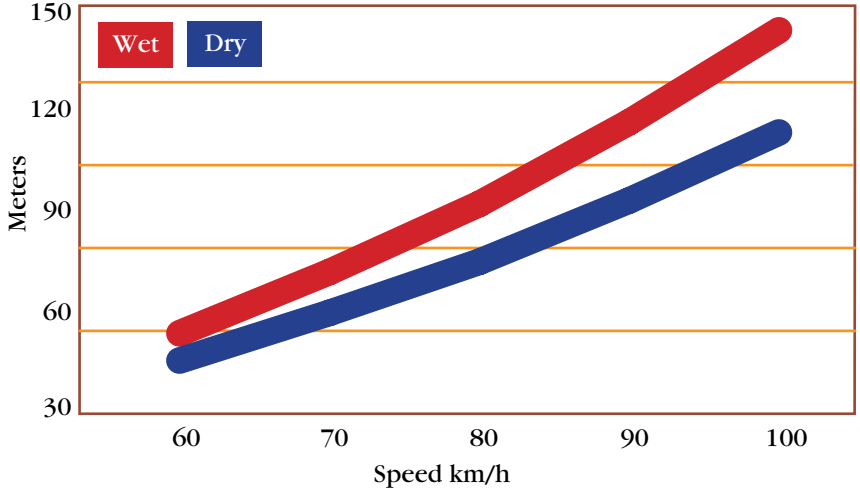
Speed limits range mainly between 40 km/h and 110 km/h across NSW. Speed limit signs show the maximum speed permitted on a particular road. A slower speed may be safer. As traffic and road conditions change, smart drivers adjust their speed to suit these conditions.

Even after about three years of driving, you may think that exceeding the speed limit is OK. Many drivers seem to do it and some get caught by the police. Speed is a factor in about 40 per cent of fatal crashes in NSW.

PROBLEMS WITH SPEED

Speeding cuts down the time that you have to detect and respond to hazards that might come up in the traffic ahead. For example, if you travel at 70 km/h in a 60 km/h zone your car will need 30 per cent more distance to brake to a stop than the other cars travelling at the 60 km/h speed limit. So even 10 km/h can make a big difference. It can mean the difference between hitting another vehicle, a pedestrian or a cyclist and being able to stop in time.

The graph below shows the distance that you travel at different speeds and the distance that you need to brake to a complete stop. The faster you go, the more distance you need to stop. You need even more distance when the road is wet.

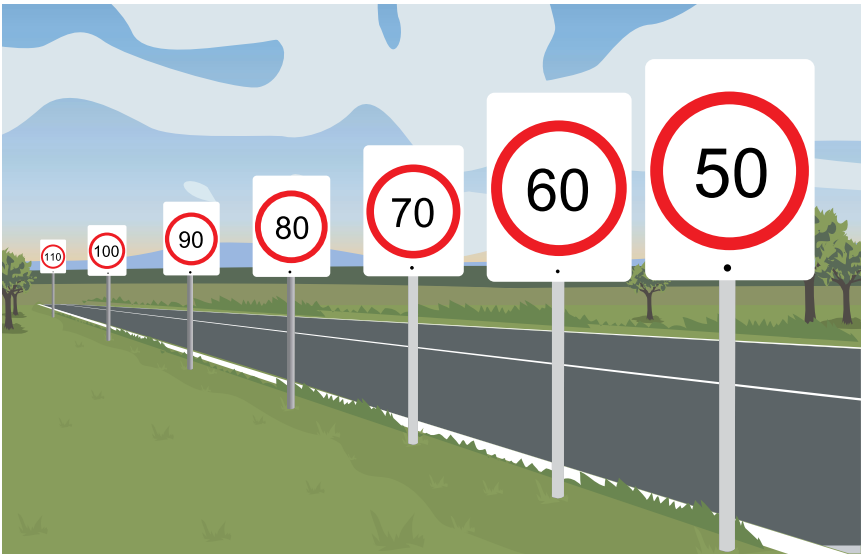


Source (15)

Remember, it takes about:

- Three-quarters of a second to see a hazard and make a decision (eg brake or don't brake) and
- Another three-quarters of a second to get your foot from the accelerator to the brake.

This means that 1.5 seconds have passed before you even start braking! At 60 km/h you will have travelled about 25 metres in this time – half the length of an Olympic swimming pool.



HOW SPEED INFLUENCES WHAT YOU CAN SEE WHEN DRIVING

You should have worked out by now that the faster you drive, the less time you have to detect and respond to hazards. But, did you know that the faster you drive the narrower your field of vision becomes (what you can see without moving your eyes or head)?

The picture following shows how your visual field narrows as you drive faster.

Source (16)

THE NARROWING VIEW FROM THE DRIVER'S SEAT

Sitting in the driving seat of a stationary car, most drivers have about a 180 degree field of vision. However, once you start moving, this field narrows. The faster you drive, the narrower it gets. At 100 km/h it has narrowed to only 50 degrees – less than one third of what you could see when you were stationary!

This narrowing of the visual field occurs because our eyes and brain can't keep up with the rapidly changing images in our peripheral vision (what we see out of the corners of our eyes to the left and right). You can experience this as a passenger when you look straight out of the side window of a car or a train. Everything seems to rush by quickly or to blur. You can't easily focus on any object.

The faster you drive, the more your vision becomes concentrated on a narrowing band immediately in front of the vehicle which doesn't appear to be blurred or to be moving quickly. The pictures show what your field of view would look like from the driver's seat when stationary and at 100 km/h. Look how much less your field of vision is and how much you can't see to the left and right on the road ahead. You could easily miss seeing the cyclist.

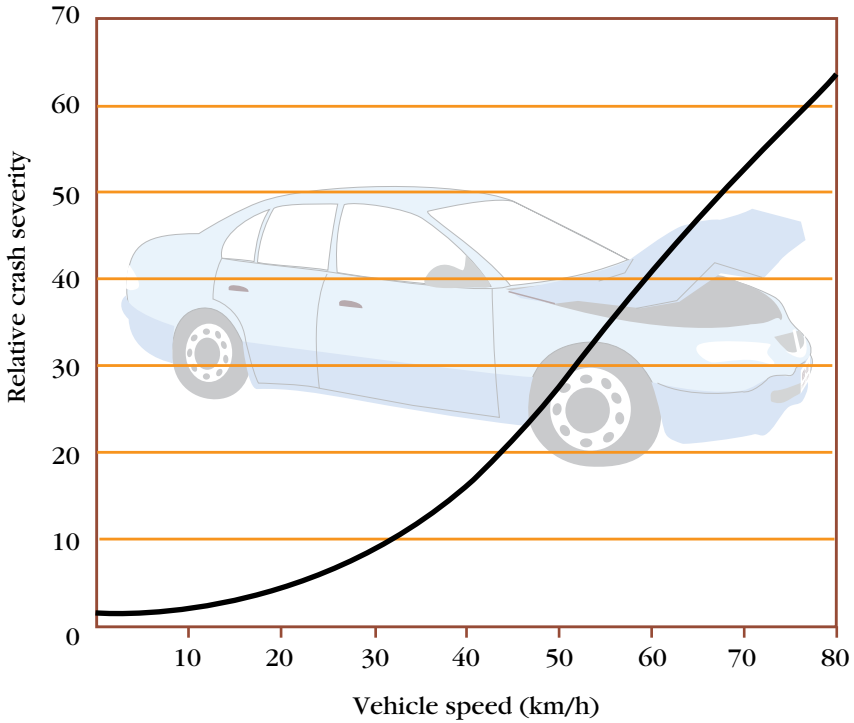
To help compensate for this narrowing field of vision at higher speeds, like 100 km/h, you need to scan more to the left and right. This means moving your eyes or head to spot hazards ahead. Doing this may help detect hazards to the left or right. You shouldn't over do it though! Scanning to the left and right can take your attention away from the road immediately ahead and increase the risk of colliding with other vehicles or road users.

Even a one second glance to the left or right at 100 km/h means that your vehicle has travelled 28 metres while you were not looking at the road ahead. The important skill is being able to increase your scanning enough so you can detect hazards away

from the centre of the road, but not so much that you might miss hazards directly in front of you.

Roads in 100 km/h zones tend to be wider, are sometimes divided by median strips and have fewer cross intersections and less pedestrian or commercial roadside activity. Freeways zoned at 110 km/h have no cross intersections, are divided and have multiple lanes. This helps compensate for the narrowing of drivers' fields of vision by reducing the potential for hazards from the left or right.

However, you don't need to be in a 100 km/h zone to be at greater risk. Because your field of vision is reduced by more than 50 per cent at even 60 km/h, detecting hazards in busy urban areas and in lower speed zones can be difficult. You may need to increase your scanning when driving in urban areas. Exceeding the speed limit also increases your risk of not detecting hazards and perhaps having a crash or getting booked by police.



Source (17)

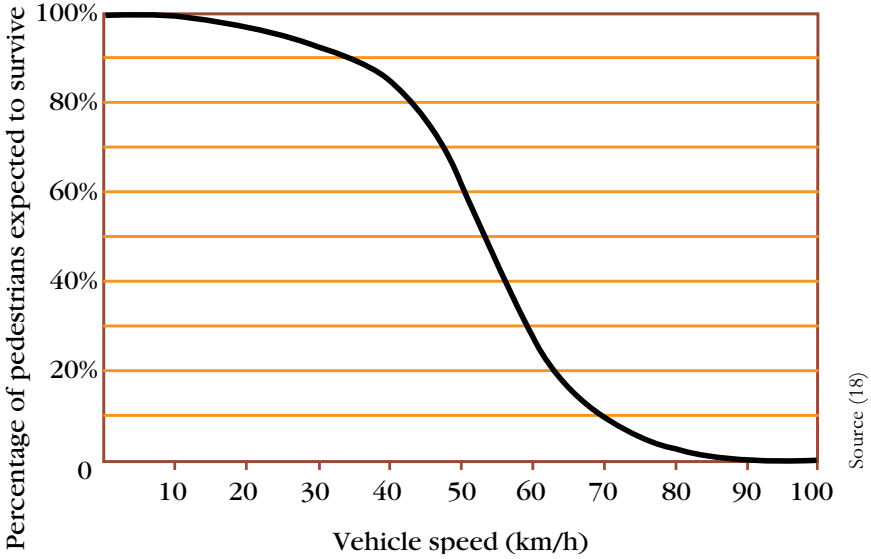
SPEEDING AND CRASH SEVERITY

The faster you drive, the harder you hit.

All that speed energy has to go somewhere. Speeding also adds to the severity of any crash that you might be involved in. The previous graph shows that as your speed doubles the severity of a crash increases fourfold. So a crash at 80 km/h is four times as severe as one at 40 km/h.

But you might not be the person that is killed or injured in a crash. For example, if you hit a pedestrian at 60 km/h they have more than a 70 per cent probability of dying. The graph below shows this clearly. At a collision speed of 80 km/h a pedestrian has almost no chance of survival.

More than 2,000 pedestrians are injured or killed on NSW roads each year. Controlling your speed could help reduce this number.

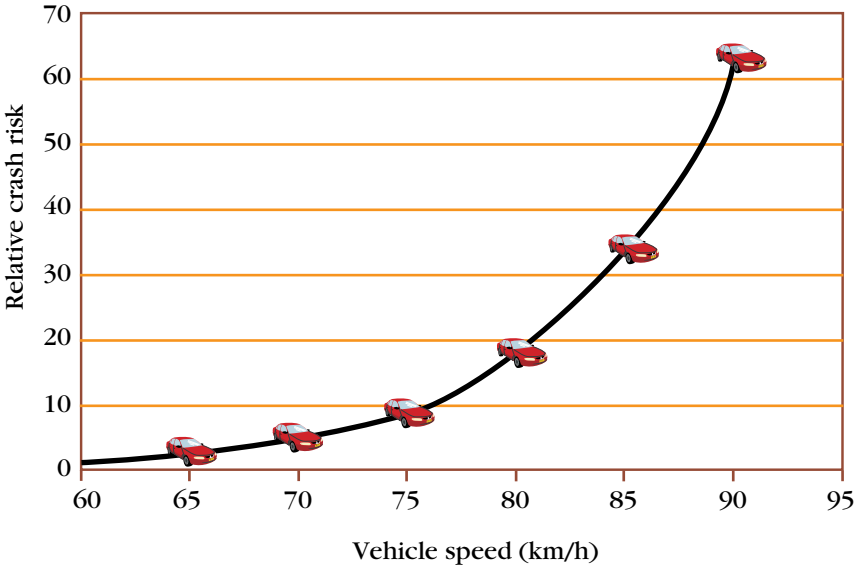


SPEEDING AND THE RISK OF CRASHING

The more you exceed the speed limit, the greater your risk of crashing. The following graph shows this relationship. For example, in a 60 km/h zone, research shows that your risk of crashing doubles for every five km/h that you exceed the 60 km/h limit.

This is why any speeding is dangerous for you and other road users and why police target speeding on NSW roads.

Speeding therefore increases your chances of crashing, your chances of death or serious injury. It also increases the chance that you will kill or injure other road users.

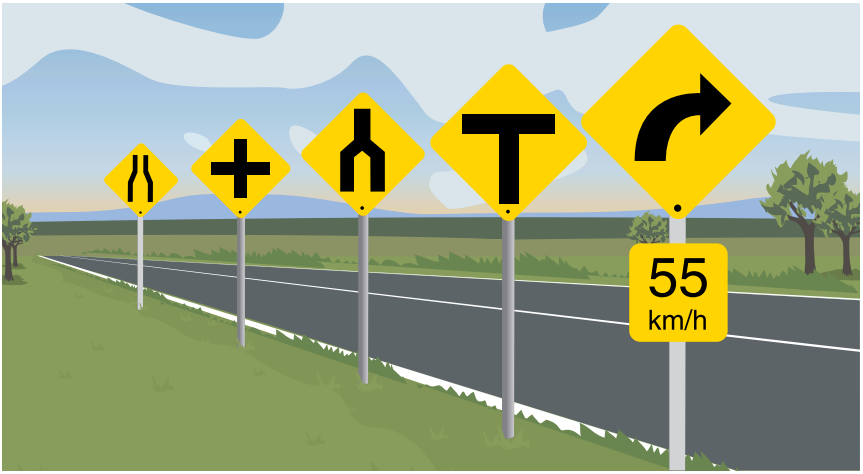


Source (17)

REDUCING THE RISK OF SPEED-RELATED CRASHES

Speed-related crashes can be avoided if you control your speed and give yourself enough time to scan ahead for hazards and enough time and space to do something about them. The advice is simple:

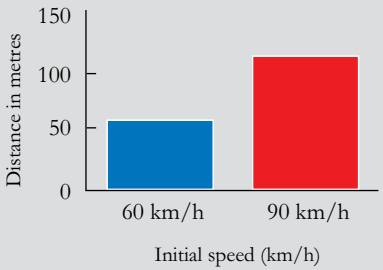
- Drive within the speed limits.
- Slow down before entering curves or bends – braking in a curve can be dangerous.
- Look for and take note of warning signs indicating curves or other hazards ahead and slow down **before** you get to them.
- Slow to the speed recommended (or lower than that shown) on the warning signs.
- If the weather is bad or the visibility is poor slow to a speed where you can pull up quickly should a hazard emerge.



Warning signs like the ones shown in the picture are there to help you manage your speed. They alert you to possible hazards ahead. However, they will not help you if you are travelling too fast to detect them or to prepare for the hazards indicated.

Controlling your speed is largely your responsibility.

Sticking to the speed limits and adjusting your speed to suit the conditions will help ensure that you avoid a crash, speeding fines or losing your licence through demerit points.



Source (15)

Stopping distance.

KEY POINTS SUMMARY: CONTROLLING YOUR SPEED

- The faster you drive the narrower your field of vision (what you can see without moving your eyes or head).
- Even at 60 km/h your field of vision is less than half of what it is when your stationary – at 100 km/h it is less than a third.
- Reducing speed, more frequent scanning and increasing your 'space cushion' can help reduce crash-risk.
- Speeding increases your chances of crashing.
- Speeding increases your chances of being killed or seriously injured.
- Speeding increases the chances of killing or injuring other road users.
- To reduce your risk, obey speed limits and adjust your speed to suit the conditions.

Tips

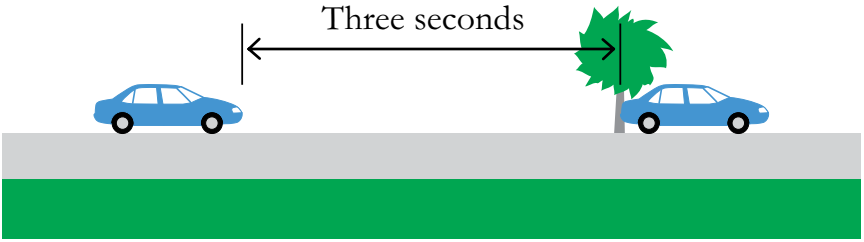
1. You might like to visit the DQT section of RMS website (www.rms.nsw.gov.au/dqt.htm) to learn more about speed and your field of vision in an interactive environment.
2. When you are approaching a place where hazards are likely and you may need to slow or stop quickly (eg pedestrian crossings or strip shopping centres), take your foot off the accelerator and 'cover' the brake. This means that your foot is over the brake pedal but not activating it. This lets you brake very quickly if you need to.

Keeping a safe following distance: Revision

To reduce your crash risk, you must increase the following distance between you and the vehicle ahead as you increase speed. If you don't do this you may crash into the back of the vehicle ahead if it has to stop quickly. This type of crash happens to a lot of NSW drivers each year. As noted in the section entitled **'Crash patterns for provisional and full licence holders in NSW'** in section 1 of this handbook, this is the most common type of crash for full licence holders.

The distance that it will take you to stop your car depends on the speed at which you are travelling. The faster you go, the longer the stopping distance. For example as shown in the previous diagram, you need **twice** the distance to stop from 90 km/h compared with stopping from 60 km/h, even in the best possible driving conditions – that is, on a sealed, dry road.

There's an easy way to avoid rear end crashes – use the 'three-second gap'.



THE 'THREE-SECOND GAP': REVISION

This basic technique applies at any speed and is easy to use. You should have come across it before (eg in the *Hazard perception handbook*), but here it is again.

All you need to do when driving is watch the vehicle in front of you pass an object at the side of the road such as a power pole, tree or sign. As it passes the object, start counting '1001, 1002, 1003'.

If you pass the object you picked out before you finish saying all the numbers, you are following too closely. Slow down, pick another roadside object and repeat the numbers again to make sure that you have increased your following distance enough.

What's good about the 'three-second gap' is that it helps you keep a safe following distance at any speed. Using the 'three-second gap' gives you a bigger following distance the faster you drive. This is what a three-second following distance looks like at 60 km/h.

Generally speaking, you should allow more than a three-second following distance in rain, fog and on icy roads. You should also use a longer following distance at night because it's harder to judge distances and spot hazards when driving in the dark. This is what a four-second following distance would look like at 60 km/h:

These distances can seem large, especially compared with the gaps other drivers leave in front of them. This might tell you something about why rear-end crashes are so common for experienced drivers. You can remind yourself that the large gap you are leaving in front of you helps to make you a more skillful and safer driver than many others.

KEY POINTS SUMMARY: KEEPING A SAFE FOLLOWING DISTANCE

- The faster you drive, the longer the distance you need to stop.
- Use the 'three-second gap' to keep a safe distance – increase this to four-seconds or more when it is dark, wet, foggy or icy.
- Scan well ahead – look through the windows of the vehicles ahead and watch for brake lights coming on two, three or more vehicles ahead.

Tips

You may find it is difficult to keep a three second following distance in heavy traffic – other drivers may move into the gap that you leave. This can be annoying, but try to maintain a three second following distance anyway.

Keeping a safe distance to the side and rear: Revision

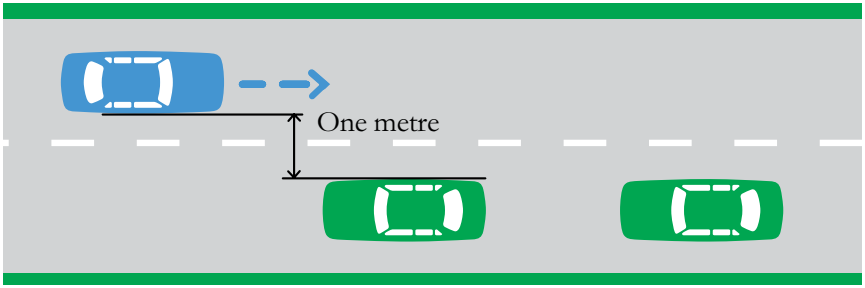
Maintaining a 'space cushion' around your car helps keep a safe distance between you and other road users to your right, left and rear.

This space gives you some room to move should you have to brake or change direction. This may be enough to avoid a collision if a hazard arises.

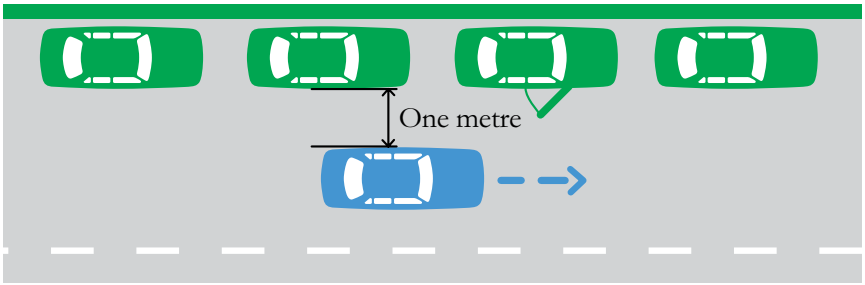
A 'SPACE CUSHION' TO THE LEFT AND RIGHT

Try to keep at least one metre between your vehicle and other moving or parked vehicles. This is particularly important when driving beside parked cars as someone might open a car door in front of you. It is also important when passing or overtaking other vehicles and when other vehicles travelling in the opposite direction pass you on narrow roads.

A space cushion to the left or right of your car also makes it safer for vulnerable road users. For example, it allows cyclists some room to move and reduces the chances of colliding with them.



You must allow clearance from oncoming traffic.



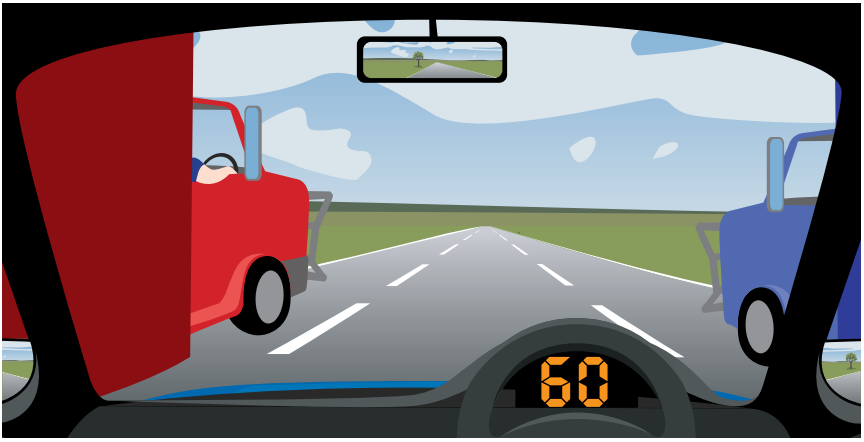
You must allow space for parked cars to open doors.

TRAVELLING NEXT TO OTHER VEHICLES

On a multi-laned road you should try not to travel with a vehicle to your left and right as shown in the picture below. You have no room to move right or left should a hazard appear in front of you. Try to keep some space in the lane beside you so that you have a chance to steer around a hazard rather than being forced to brake hard to avoid hitting it.

As shown in the picture, driving between two vehicles, especially trucks, also blocks your vision. This may prevent you from seeing a hazard to the left or right until it is too late (eg a car entering from a side road).

On multi-laned roads or freeways when the traffic is heavy it will be harder to avoid travelling next to other vehicles. Fortunately, the traffic is usually travelling more slowly in such circumstances, so braking is often easier and less dangerous than at higher speeds.



KEEPING SAFE DISTANCE TO THE REAR

Maintaining a 'safety cushion' behind you is difficult as it is the other driver who has most control of the space between your vehicle and theirs. If the vehicle behind you is following too closely, slow down slightly to increase the space ahead of you. This means that if you spot a hazard in front of you and need to brake, you can do this gradually and the vehicle behind has more time to stop. While tailgaters are annoying, you don't want one to run into your vehicle if you can help it.

KEY POINTS SUMMARY: KEEPING A SAFE DISTANCE TO THE SIDES AND REAR

- Try to keep at least a one metre 'space cushion' between you and vehicles to your left and right.
- Avoid travelling next to other vehicles if you can – especially large vehicles like trucks and buses.
- Give pedestrians, cyclists and motorcyclists plenty of room.
- It is difficult to maintain a 'space cushion' behind your vehicle as the other driver controls the space.
- If the vehicle behind is travelling too closely, slow down slightly to increase the 'space cushion' in front of your vehicle.

Tips

1. You might like to visit the HPT section of RMS website (www.rms.nsw.gov.au/hpt.htm) to help you with revision on safe following distances in a more interactive environment.
2. You will find a more advanced interactive exercise on following distances and avoiding collisions at the DQT section of RMS website.

Selecting safe gaps: Revision

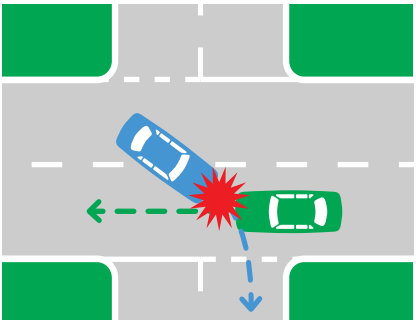
WHAT IS A SAFE GAP?

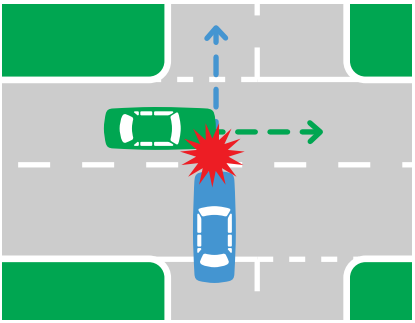
A safe gap is one that allows you to turn, overtake or cross an intersection without being involved in a collision or endangering other road users. This means that no other road users should need to take evasive action to avoid your vehicle. For example, if you make a left turn from a side street onto a main road and the traffic on the main road has to brake heavily or change lanes to avoid colliding with you, the gap was not safe.

If a gap is not large enough, it is unsafe and you should not go. Remember, good hazard perception is as much about recognising when to stay as when to go. As noted in section 1 entitled, **'How the Driver Qualification Test works'**, Part 2 of the test may present you with some situations where it is not safe to turn, overtake or cross an intersection. It is therefore important to recognise safe and unsafe gaps in traffic.

IMPORTANCE OF SAFE GAP SELECTION

Selecting safe gaps in traffic when turning, crossing traffic, overtaking or changing lanes is a key hazard perception skill for all drivers. About one third of crashes involving first year full licence holders happen when the driver selects a gap that is too small and collides with another vehicle. Gap selection is particularly important at intersections.





KEY POINTS SUMMARY: SELECTING SAFE GAPS: REVISION

- A gap is safe where you can turn, overtake, change lanes or cross an intersection:
  – Without being involved in a crash.
  – Without endangering other road users.
  – Without other road users having to take action to avoid your vehicle.
- If a gap is not large enough, don't go – wait until it is safe.

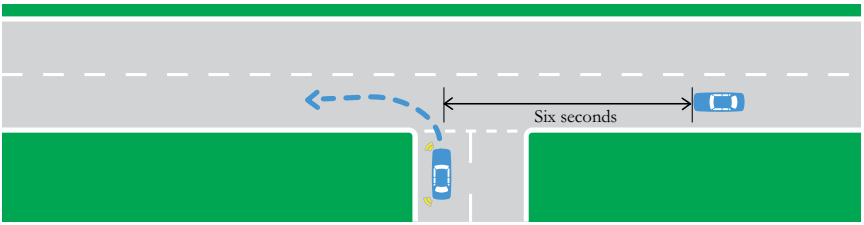
Tips

1. You might like to visit the HPT section of RMS website (www.rms.nsw.gov.au/hpt.htm) to revise selecting safe gaps concepts in a more interactive environment.
2. If you think your gap selection skills are good, try the interactive exercises in the DQT section of RMS website at www.rms.nsw.gov.au/dqt.htm.

Selecting safe gaps when turning: Revision

Making turns is often difficult, particularly when the traffic is heavy. You may need to watch for traffic and other road users such as pedestrians to the front, left and right. The key hazard perception skill, however, is selecting a gap that is big enough for you to complete the turn safely.

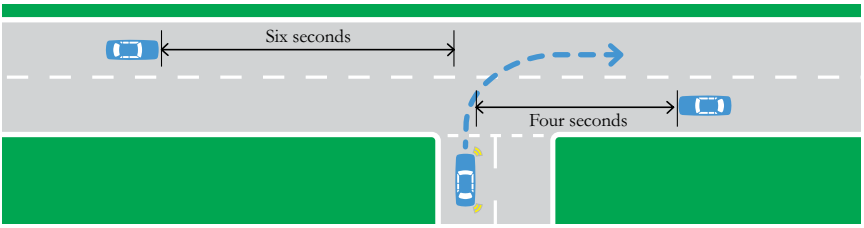
For example, if you are turning left in a 60 km/h zone you will need a gap of about six seconds between your car and vehicles approaching from the right. This assumes that the traffic is travelling at 60 km/h – it may actually be faster.



Choose a safe gap so other vehicles are not forced to change speed.

Remember, a six-second gap means that you could count '1001' through to '1006' before a vehicle from the right would be level with your car. Of course, you need to judge what this distance looks like as you can't use this counting tool as you are making a left hand turn.

If you are turning right in a 60 km/h zone you will need a gap of at least four seconds between your car and vehicles approaching from the right, but a gap of at least six seconds from the left. This assumes that the traffic is travelling at 60 km/h – it may actually be faster – and that there is no on-coming traffic.



Choose a safe gap so other vehicles are not forced to change speed.

TURNING RIGHT AT TRAFFIC LIGHTS

Making a right turn at traffic lights is simpler than at an uncontrolled intersection (ie one without traffic lights, 'stop' signs or 'give way' signs).

If you are turning right at traffic lights in a 60 km/h zone you will need a gap of at least four seconds between your car and approaching vehicles. Again, this assumes that the approaching traffic is actually travelling at 60 km/h – it may actually be faster.

The picture below shows what a four second gap would look like from a driver's eye view.

TURNING RIGHT AT A CROSS INTERSECTION

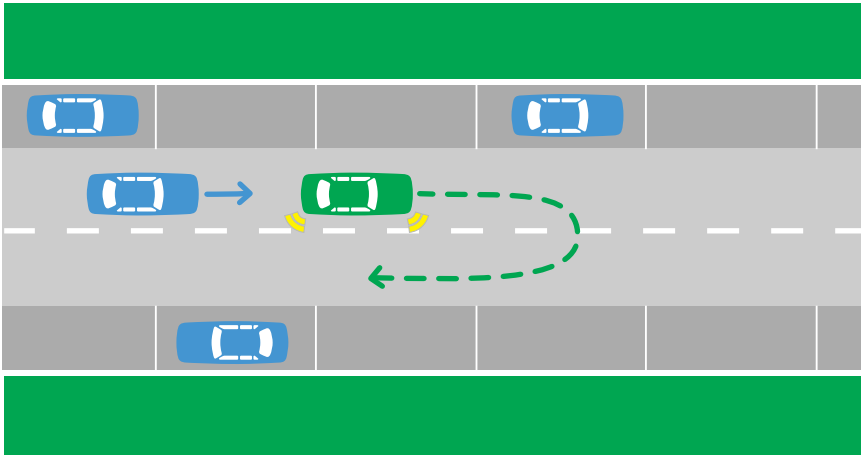
Turning right at a cross intersection (ie one with four directions) with oncoming traffic and traffic from the right and left, your task will be harder. You will need to look three ways to judge a safe gap – to the front and the left and right. You are also likely to be facing a 'stop' or 'give way' sign.

In this situation you need at least a four second gap to the right, at least a six second gap to the left and at least a four second gap to the front.

MAKING U TURNS

U turns are more complicated than right turns as you need to look for traffic approaching from both behind you and in front.

U turns are difficult and potentially dangerous, particularly on busy, high speed roads. Every year more than 800 police-reported crashes involve U turns. They should be avoided unless you have no other choice. An alternative is to do a right turn into a side street, make a three-point turn where it is quieter and safer in the side street, then turn left back on to the road you came from. There is no shame in doing this. Even very experienced drivers do it all the time.



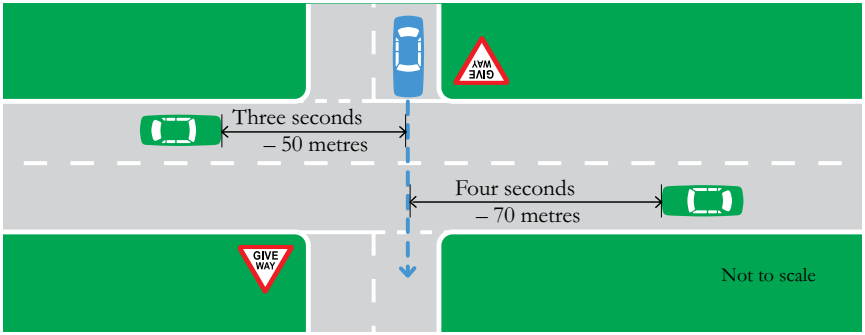
KEY POINTS SUMMARY: SAFE GAPS - TURNING

- When turning left in a 60 km/h zone you need at least a gap of six seconds (about 100 metres) between your car and vehicles approaching from the right.
- When turning right in a 60 km/h zone you need gaps of at least the following:
  - Four seconds to the right (about 70 metres).
  - Six seconds to the left (about 100 metres).
  - Four seconds to the front (about 70 metres) – where there is oncoming traffic.
- Avoid U turns unless you have no other choice.
- If a gap is not large enough, don't go – wait until it is safe.

Selecting safe gaps when crossing intersections: Revision

Crossing intersections can be almost as complicated as making a right turn. You need to look for traffic approaching from the left and right and look out for oncoming traffic that may be turning right. Often you will be facing a 'give way' or 'stop' sign as shown in the following picture. This means that the task can be very demanding, particularly when the road that you are crossing is busy and the traffic is travelling quickly.

From a stationary position it takes at least three seconds to cross a typical intersection on a two-way road. This means that you need **at least** a three-second gap between your car and vehicles approaching from the right. You will also need a bigger gap, at least four seconds, for traffic on your left to allow you to cross the intersection in safety and not cause the cross traffic to brake or swerve to avoid your car. These gaps are illustrated in the picture.



You may need less time to cross the intersection if your car is already moving. This may be the case when you are approaching a 'give way' sign at an intersection and can proceed across without stopping. However, take care. It is difficult to judge your speed and that of other traffic from the left and right. If in any doubt, stop and cross the intersection when you are sure the gap is big enough.

KEY POINTS SUMMARY: SAFE GAPS WHEN CROSSING INTERSECTIONS

- When crossing a typical intersection in a 60 km/h zone, you need gaps of at least the following:
  – Three seconds to the right (about 50 metres).
  – Four seconds to the left (about 70 metres).
- If a gap is not large enough, don't go – wait till it is safe.

Tips

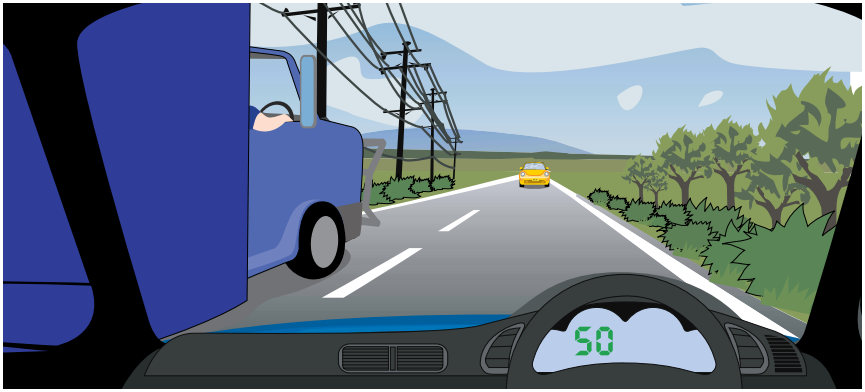
1. You might like to visit the HPT section of RMS website (www.rms.nsw.gov.au/hpt.htm) to help you with revision on safe gaps in a more interactive environment.
2. You will find more advanced interactive exercises on safe gaps and avoiding collisions in the DQT section of RMS website (www.rms.nsw.gov.au/dqt.htm).

Selecting safe gaps when overtaking: Revision

Overtaking other vehicles is hazardous. If you misjudge the gap needed to overtake safely you could collide head-on with an on coming vehicle. Head-on crashes are usually very severe as the speed of your car combines with that of the other. For example, a head-on crash where both cars are travelling at only 50 km/h gives a collision speed of 100 km/h – equivalent to driving into a stationary object at 100 km/h!

About 16 per cent of all crashes involving NSW full licence holders are between vehicles from opposing directions. This shows that judging safe gaps in oncoming traffic is always important for drivers.

You also need enough space to avoid colliding with the vehicle that you are overtaking. Selecting safe gaps for overtaking is a key hazard perception skill.



Most of the time overtaking is performed to maintain your chosen speed. However, you sometimes do need to overtake or pass stationary or broken-down vehicles. In these situations you should ensure that you allow a large enough 'space cushion' and that you select a large enough gap in oncoming traffic. Remember, do not exceed the speed limit when overtaking.

On country roads and highways there are often overtaking lanes at regular intervals to allow you to safely overtake. These are signposted well in advance with signs that look like this.

Use these overtaking lanes to pass slower traffic whenever possible. It's safer and avoids the risk of a head-on crash – there's no embarrassment in waiting a kilometre or two before overtaking a slower vehicle.

KEY POINTS SUMMARY: SAFE GAPS WHEN OVERTAKING

- Safe overtaking is difficult – if it doesn't look or feel safe, then don't do it – wait until it is safe.
- Use overtaking lanes on country roads and highways to overtake safely.

Tips

1. You might like to revise overtaking issues in the *Hazard perception handbook*.
2. Before overtaking, check to ensure that someone isn't trying to overtake you.

Scanning for hazards

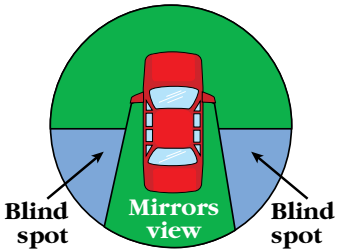
WHAT IS SCANNING?

Scanning means taking in the whole scene 360 degrees around your car. This is a key hazard perception skill that drivers of all experience levels need to use to avoid crashes. You need to scan constantly for hazards when you drive.

Effective scanning means constantly moving your eyes and/or your head when driving so that you can detect hazards that may arise ahead, to the sides and behind your vehicle. You are probably better at scanning than when you first got a P licence, but a little revision may be helpful.

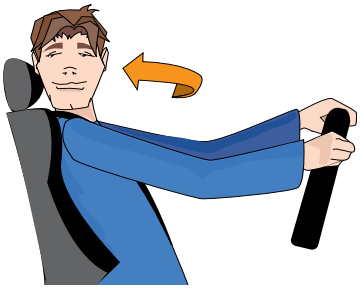
HOW TO SCAN FOR HAZARDS WHEN DRIVING

To scan effectively you will need to move your eyes, your head and perhaps your upper body to get a good view of what is going on right round your car.



The picture above shows that you need a 360 degrees view (a full circle).

This means that you need to look out of the windscreen and the side windows to see what is shaping up ahead and to the sides. You also need to use your mirrors to see what is behind you. But your mirrors can't cover all of the view behind. You always have 'blind spots' – areas not covered by your mirrors. To check your blind spots you will need to turn your head and look out the side windows.



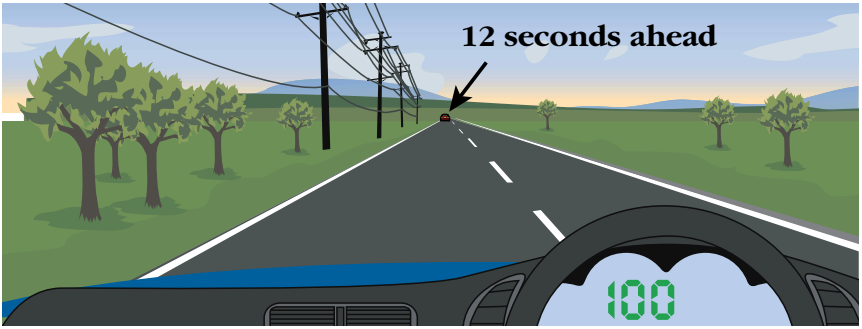
As you have probably noticed by now, blind spots will be different on each vehicle that you drive.

Checking the blind spots with a head check is vital when you want to pull out, change lanes or reverse. A head check (where you look over your shoulder) is illustrated in the picture on the left.

REVISION OF A SCANNING ROUTINE

Experienced drivers constantly scan for hazards when driving. They do it automatically. By now you too should have developed a good scanning routine.

Look up to 12 seconds ahead. In a 60 km/h zone this means looking up to 200 metres ahead. On a freeway at 100 km/h it is up to 500 metres. What this would look like at 100 km/h is shown in the picture. Scan this far ahead to spot hazards. This gives you plenty of time to avoid them.



Scanning far enough ahead may mean looking through the windows of vehicles ahead of you to see what is happening. If you do this you will know in advance if a car ahead is braking as you will see the brake lights come on several cars ahead. This gives you more time to brake if you have to. Good scanning means that you are not just looking at the vehicle immediately in front of you.

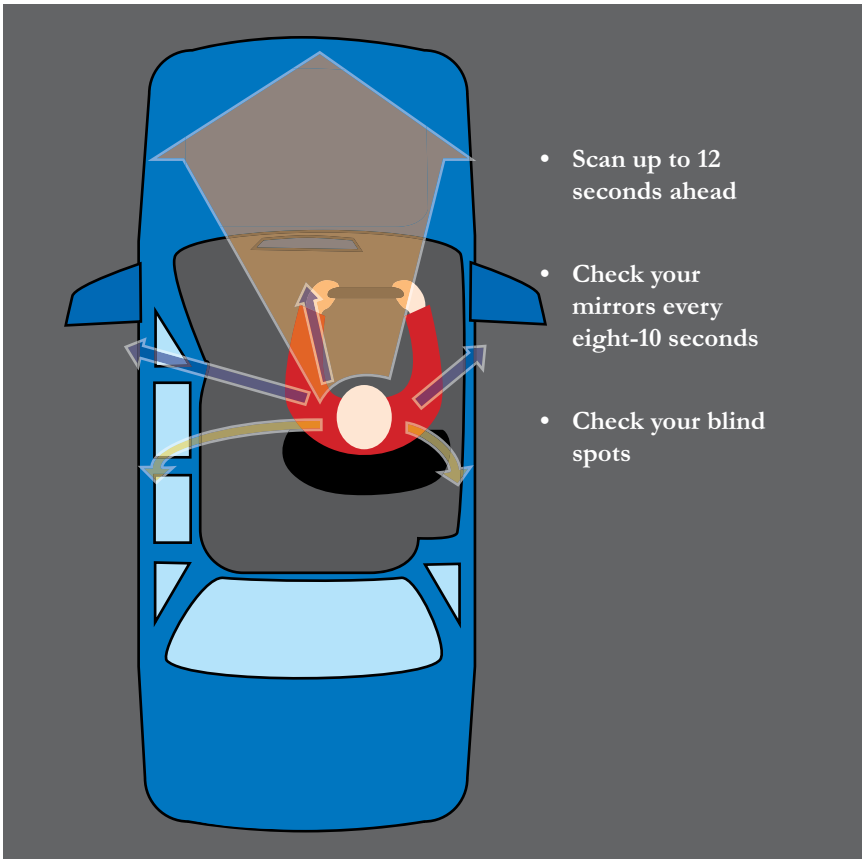
Looking ahead also means scanning from side to side for hazards on the roadside or at intersections. Hazards may be parked cars, cyclists or pedestrians. Effective scanning means constantly moving your eyes and/or your head and not staring at any one spot.

Check your mirrors every eight-10 seconds. Things change behind and beside you when you drive. Unless you check your mirrors you won't know if someone is doing something such as trying to overtake or if there is an emergency vehicle coming up quickly.

Check your blind spots. Scanning ahead and checking your mirrors is usually sufficient only when you are driving along in the same lane without turning or changing lanes. If you need to turn or diverge, right or left, you need to know what is in your blind spots. Head checks enable you to check your blind spots.

SUMMARY OF SCANNING ROUTINE

This scanning routine is summarised in the picture below.



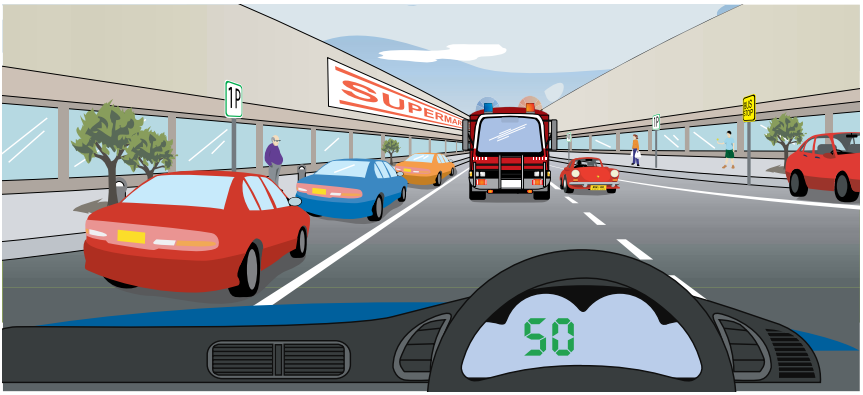
This routine takes about 10 seconds to complete. It needs to be constantly repeated as you drive. Of course if you detect a hazard and need to deal with it, this will be your immediate priority. But once this has passed, you need to return to your scanning routine.

SMART SCANNING

When you are scanning, there is a lot to look at and a lot to take in. It would be impossible to look at and attend to everything that you see in detail. You need to be smart about the way you scan for hazards. This means sorting or filtering what is important from everything that is happening. Here are some ways to make your scanning smarter.

LOOK FOR CHANGE

Your vision is designed to spot movement and change, not what stays the same. This means that moving hazards may be easier to spot than stationary ones like road works or parked vehicles. This can be a problem as you can get distracted by a fast moving hazard (eg an ambulance or fire truck coming towards you) and miss a stationary one that may be of more immediate concern (eg a parked truck blocking your lane). You need to look for both moving and stationary hazards.



A HAZARD PERCEPTION ACTION PLAN

Remember, through scanning and hazard perception you are trying to:

- **See** road hazards (eg vehicle waiting to cross the intersection ahead).
- **Think** about what might happen (eg vehicle might move in front of my car).
- **Think** about possible solutions (eg slow down, change lanes or increase space between my car and other vehicles).
- **Do** something to remain safe (eg slow down and create more space).

This hazard perception process can be summarised as See-Think-Do. Scanning is the 'see' part of the process. Understanding and using these steps is the basis of good hazard perception.

LISTENING FOR HAZARDS

While driving is mainly a visual task, listening can also help detect hazards. For example, you have probably heard the sirens of emergency vehicles before you saw the vehicle.

To help you listen for hazards, it is good not to have the radio or stereo too loud when you are driving. You can see for yourself how important this is. Sit in the driver's seat with all the windows closed and the radio on.

See how difficult it is to hear surrounding noises (or even a friend yelling at you) when the radio is turned up.

KEY POINTS SUMMARY: SCANNING FOR HAZARDS

- Scanning means taking in the whole scene 360 degrees around your car – including any blind spots.
- You need to scan constantly for hazards when driving – look and listen for hazards.
- Use a scanning routine:
  - Look up to 12 seconds ahead – at 60 km/h this is about 200 metres, at 100 km/h about 500 metres.
  - Look for change and movement in the traffic scene.
  - Check your mirrors every eight -10 seconds – outside and inside mirrors.
  - Check your blind spots with a head check before turning or diverging right or left.
- Remember the simple hazard perception action plan:
  - See (hazards).
  - Think (about what might happen and what to do).
  - Do (do something to stay safe).

Tips

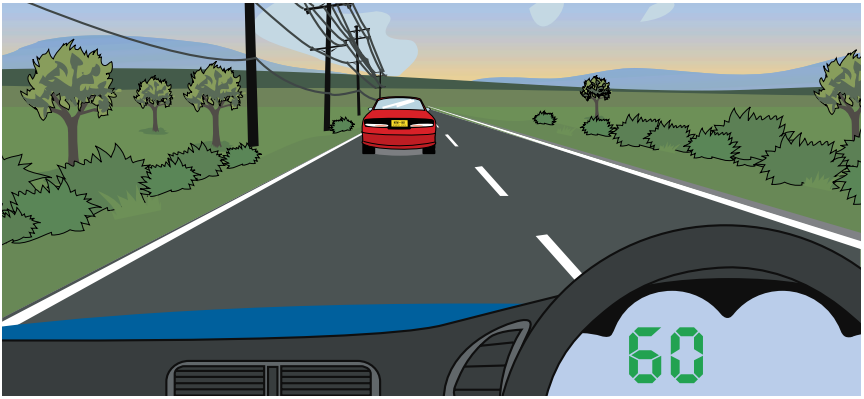
1.. There is a lot of good information and advice on the effects of fatigue and ways of minimising the risk of fatigued driving on RMS website (www.rms.nsw.gov.au). You might like to visit the site to learn more.

2. Remember to 'stop, revive, survive' – Take a 15 minute break every two hours when driving.

A few last words on becoming a better and safer driver

People continue to develop as drivers until their mid 30s. For most people graduating to a full NSW licence this means about another 15 years for further improvement and development. Experience and growing maturity will be the main teachers.

The aim of this handbook (and the information about the DQT on RMS website at www.rms.nsw.gov.au/dqt.htm) is to help you develop further as a safer driver – not just to prepare you to undertake the Driver Qualification Test (DQT). So read it often and apply the knowledge and skills contained in it to your driving. You should also visit the DQT section of RMS website for a more interactive learning experience. But a book or website can never be a substitute for experience gained on real roads and in real traffic.



SUMMARY OF KEY HAZARD PERCEPTION AND RISK MANAGEMENT SKILLS

The key hazard perception and risk management skills are:

- Keeping a safe distance from other vehicles.
- Selecting safe gaps when turning, crossing traffic or changing lanes.
- Scanning for hazards ahead, behind and to the side.
- Minimising the risk to yourself and other road users by
  - Not drinking and driving.
  - Not driving if or when affected by drugs.
  - Avoiding fatigue and by getting enough sleep.
  - Controlling your speed and driving to suit the road, traffic and weather conditions.
  - Minimising risky driving behaviour.
  - Always wearing seat belts.
  - Minimising distractions inside the vehicle.
  - Accepting that you and others make mistakes.

Applying the skills and knowledge in this handbook on the road will help you deal with both the routine and the unexpected situations that may arise when driving.

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Glossary

Adjacent direction – coming from the left or right across your path.

Arterial road – a main road that carries a lot of traffic between suburbs or within cities or towns.

Blind spot – area where your vision to the front, side or rear is blocked when driving.

Blood Alcohol Concentration (BAC) – The proportion or percentage of alcohol in the bloodstream (eg the BAC limit for full licence holders in NSW is 0.05 which means 0.05 per cent alcohol or .05 grams of alcohol per 100 millilitres of blood ie. 0.05g/100ml).

Covering the brake – Where your right foot is off the accelerator and over the brake pedal without activating the brake (see also 'setting up the brake').

Driver Qualification Test (DQT) – A combination of an advanced hazard perception test, and a test of road rules and safe driving. This test must be passed to progress from P2 stage to full licence status.

Fatigue – The experience of feeling 'sleepy', 'tired' or 'exhausted'. Fatigue affects both your body and your ability to drive safely.

Field of vision – What you can see without moving your eyes or head.

Following distance – the distance between your vehicle and the vehicle travelling ahead of you in the same direction.

Full Licence – licence issued to P2 drivers who have held that licence for at least 24 months, have passed the Driver Qualification Test (DQT).

Hazard – any possible danger that might lead to an accident.

Hazard perception – ability to recognise and respond to potentially dangerous situations and react appropriately.

Hazard Perception Test (HPT) – a touch-screen computer test which measures your ability to recognise and respond to potentially dangerous situations and react appropriately when driving. Provisional drivers must pass this test to progress from the P1 to P2 licence stage.

Head check – looking over your shoulder to the left or right to make sure that there's nothing in your blind spot. Also known as shoulder check.

High alcohol hours – Periods of time during the week when alcohol related crashes mostly occur – mostly weeknights and weekends. About 30 per cent of fatal crashes are alcohol related during these hours.

Low alcohol hours – Periods of time during the week when alcohol-related crashes least occur – mostly daylight hours, on weekdays and portions of Saturday and Sundays. Less than 10 per cent of fatal crashes are alcohol related during these hours.

Microsleeps – Brief, unintended periods of loss of attention associated with events such as blank stare, head snapping, prolonged eye closure, etc, which may occur when a person is fatigued but trying to stay awake to perform a monotonous task like driving a car or watching a computer screen.

Multi-Laned road – A road with more than one lane in each direction. These roads sometimes have a median strip dividing traffic travelling in each direction.

P1 Licence – provisional licence - Stage 1. This is the first provisional licence issued to new solo drivers in NSW after 1 July 2000. It must be held for a minimum of 12 months before one becomes eligible to progress to Stage 2. P1 drivers must display a red P plate (red P on a white background).

P2 Licence – provisional licence - Stage 2. This is the second licence issued to new solo drivers in NSW after 1 July 2000. It is issued for 30 months to drivers who have held a P1 licence for at least 12 months and have passed the Hazard Perception test (HPT). A P2 licence must be held for a minimum of 24 months. P2 drivers must display a green P plate (green P on a white background). A P2 licence has fewer restrictions than a P1 licence.

Road rage – A range of anti-social or aggressive behaviour by drivers.

Safe gap – a gap in traffic that enables you to turn, overtake or cross an intersection without being involved in a collision or endangering other road users. This means that no other road users should need to take evasive action to avoid your vehicle.

Scanning – constantly moving your eyes and/or your head when driving so that you can detect hazards that may arise ahead, to the sides and behind your vehicle. Scanning means taking in the whole scene 360 degrees around your car.

Setting up the brake – where your right foot is off the accelerator and lightly activating the brake.

Sleep debt – The difference between the hours of sleep a person needs and the actual hours of sleep they get.

Space cushion – A 'buffer zone' around your vehicle (to the front, sides and rear) between you and other vehicles and road users that gives you time to spot and react to hazards that may arise.

Speeding – Excessive or inappropriate speed – not adjusting your speed to suit the conditions.

Warning signs – yellow diamond shaped signs that warn you of hazards ahead (eg animals or an intersection).

Source of data and statistics

1. Derived from NSW road traffic accident data supplied by RMS NSW Centre for Road Safety – based on police-reported crashes for 2007-2009.

2. Australian Bureau of Statistics (2007) Causes of Death, Australia 2007: Underlying Cause of Death by Cause of death and ICD 10 Code. Canberra: Author (Available on ABS website: http://www.abs.gov.au/ausstats).

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