

Braking and stopping

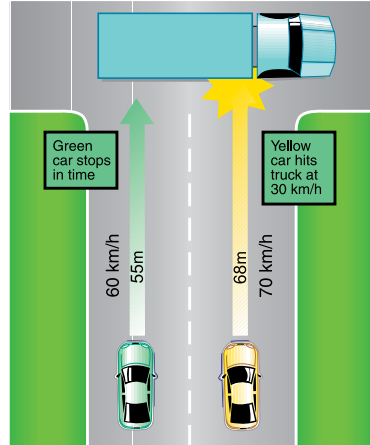
Stopping distance will depend on how quickly you react to danger and the speed at which you are travelling.

The average reaction time (from the time drivers see danger to when the brakes are applied) is two seconds.

Note: As your speed doubles, your stopping distance more than doubles.

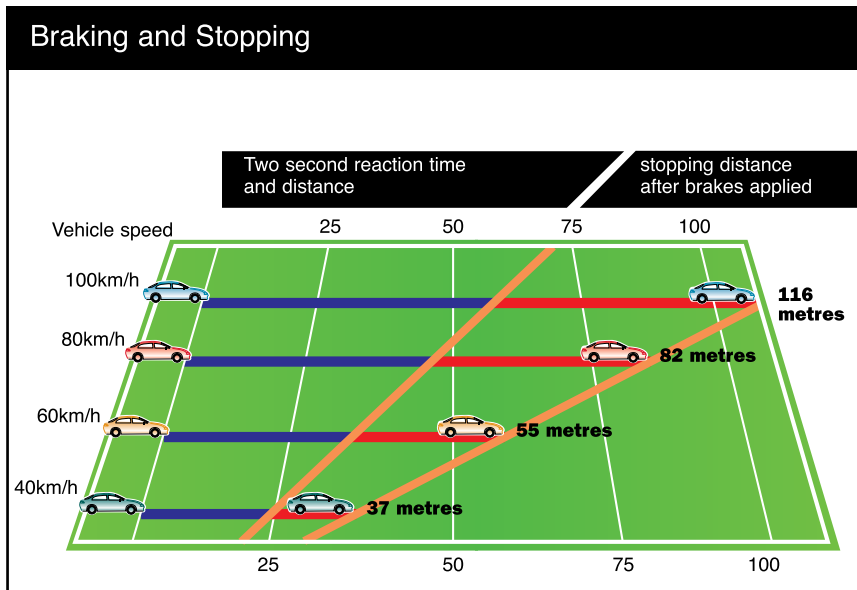
At 60 km/h a vehicle will travel 34 metres while the driver is reacting to the danger, and another 21 metres before the car comes to a stop. Total stopping distance is 55 metres.

Stopping distances shown are for vehicles with good brakes, on a good dry smooth road surface, and fitted with good tyres with the required tread depth.



Two cars travelling at different speeds have different stopping distances.

The yellow car is only going 10 km/h faster than the green car. The blue truck suddenly pulls out and blocks the intersection 60 metres away.



The green car will stop in time - but the yellow car will probably hit the truck at about 30 km/h.

Reaction Time

How fast can you react to a hazard in front of you? It takes a very alert driver at least one second to react to an emergency. Unless you are giving your complete attention, it will take a lot longer. Reaction time is the distance travelled by a vehicle while a driver sees the need to use the brake and actually starts to physically apply the brake.

Travelling at 60km/h, you will cover about 17 metres per second. If you double your speed, you double the distance you will travel during your reaction time.

Total stopping distance = reaction time + Braking distance.

ABS - Anti-lock Braking System

Anti Lock Braking Systems (ABS) are designed to assist the average motorist in an emergency braking situation. ABS stops the wheels locking during heavy or emergency braking. This permits the driver to steer the vehicle whilst maintaining maximum braking.

Advantages of ABS:

- steering is maintained during maximum braking; and
- stability is maintained when braking on varying surfaces, eg. two wheels on roadway and two wheels on the dirt shoulder of the roadway.

ABS will not:

- shorten the braking distance of a vehicle; in fact in some situations

(gravel roads) it may increase the braking distance; or

- stop the brakes from fading during heavy or prolonged use, eg driving down a long hill and 'riding' the brakes most of the way.

Reversing



Reversing

Before attempting to reverse, check your inside rear vision mirror, then your left and right hand external mirrors. Only if your way is clear, should you reverse your vehicle.

If you are not certain that the way is clear because of blind spots, get someone else to guide you, or get out and check yourself.

Look over your left shoulder through the rear window when reversing.

Children are often the victims of tragic accidents when run over by reversing cars.

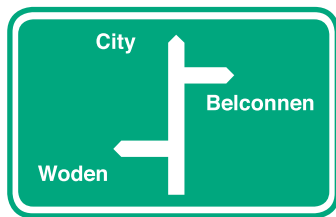
Do's and don'ts:

- never reverse from a minor road into a major road;
- never reverse for a greater distance than is necessary;
- always try to enter and leave any road in a forward direction.

Major ACT arterial roads



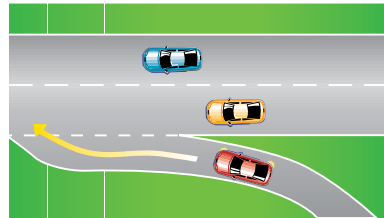
There are no freeways in the ACT and therefore no prohibited users. However, some of the signs and basic rules of freeways are useful for when you drive interstate or use ACT arterial roads such as the Tuggeranong Parkway.



When driving on interstate freeways or major ACT roads such as the Tuggeranong Parkway:

- do not stop, except in an emergency or in case of a breakdown. If you must stop, use only the emergency lane provided;
- do not travel in the emergency lanes unless you are stopping;
- do not make U turns;
- do not reverse;
- signal well before changing lanes to compensate for the higher speed of travel;

- be ready and in the correct lane when approaching your exit ramp (if you miss your exit you cannot turn back – continue ahead to the next exit);
- observe lane markings and do not change lanes suddenly or without warning;
- use all lane changing procedures BEFORE attempting to overtake. Make sure you are not being overtaken yourself. If you are, allow the vehicle to pass completely before starting your overtaking manoeuvre. Be sure to signal your intention;
- keep left at all times unless overtaking.



Using the entry ramp/lane

When entering a major road from an entry ramp/lane, accelerate to near the speed limit for the road you are entering. Indicate for its whole length (dependent on road and traffic conditions). Use your mirrors and do a head-check. Look for an appropriate gap to enter, and move onto the major road smoothly. Be prepared to give way to vehicles on the major road if there are no suitable gaps in the traffic flow.



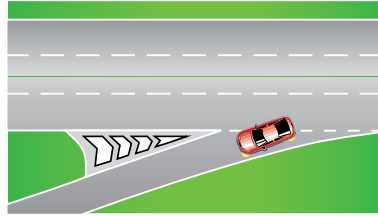
You **MUST** give way to any vehicles already travelling on any major arterial road.



When leaving a major arterial road the exit lane will usually be on the left.



Watch for signs warning you that you are approaching an exit ramp.



Move into the left lane in good time, give a left turn signal, and prepare to reduce speed to the ramp advisory speed sign, if displayed. Additional care should be taken in heavy traffic, inclement weather or poor road conditions.



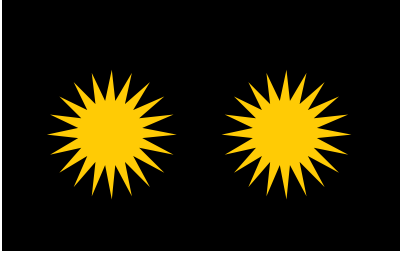
A “Wrong Way - Go Back” sign facing you as you attempt to enter an exit ramp means you are going the wrong way.

If this happens to you:

- pull to the side of the ramp and reverse slowly back the way you came;
- use hazard warning lights to make other drivers aware of possible danger;
- do not attempt to do a U-turn or 3-point-turn while on the ramp.

Driving under difficult conditions

Night driving



Head and tail lights (not just parking lights) **MUST** be switched on when you are driving between sunset and sunrise.

The use of lights at other times, such as during the day, or in fog, makes it easier for other drivers to see you.

By law, your vehicle must be fitted with at least two red reflectors (one on either side) at the rear. Red reflectors must not be fitted to the front of a vehicle; however white ones are permitted on the front.

Points for night driving:

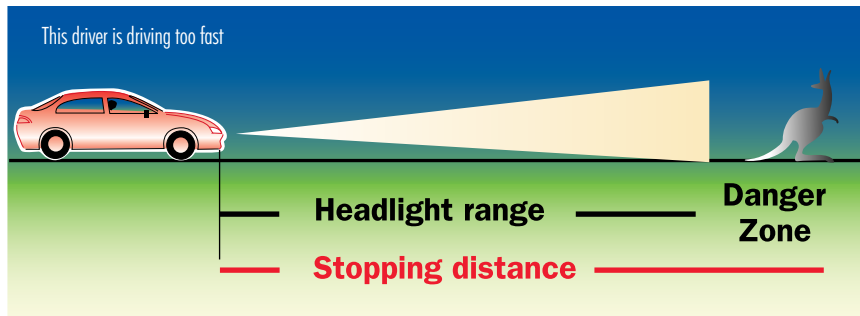
- You can use high beam on any road or street, however, when using high beam you must dip your lights for oncoming vehicles as soon as possible and at least 200 metres away.

- blinding another driver with your lights on high beam is both dangerous and illegal;
- when approaching oncoming vehicles, avoid looking directly into their headlights. If the oncoming vehicles headlights remain on high beam, look to the left hand edge of the roadway to avoid the glare. If dazzled, slow down or pull over until your eyes recover;
- always dip your lights when following closer than 200 metres to another vehicle;
- watch out for pedestrians or cyclists;



- watch the road for animals which may be dazzled by your lights - if an animal is dazzled, brake carefully and sound your horn - if you are unable to stop safely, steer around the animal;

- keep your speed down, and give yourself time to react. You should be able to stop within the distance that you can see with the headlights. On rural and/or unlit roads be prepared for the unexpected.



Fog lights

Some vehicles are fitted with fog lights. Front fog lights have a unique flat and wide beam pattern with an effective range of up to 50 metres. Rear fog lights are red and have 20 times the luminous intensity of your standard tail lights. Fog lights should only be used when visibility is poor so, if your vehicle is equipped with fog lights, know when to use them.

Front fog lights - must only be used for driving when fog, rain, snow or other hazardous conditions reduce visibility. You will see better in fog if you dip your lights. Do not use high beam as the light will reflect back at you. In severe conditions, it can be beneficial to drive with only the parking and fog lights switched on, further reducing headlight glare.

Rear fog lights (red) - must only be used for driving when fog, rain, snow or other hazardous conditions reduce visibility. If your vehicle does not have a rear fog light, turn on the flashing hazard warning lights instead. You must switch off your rear fog light or hazard warning lights as driving conditions and visibility improve.

Winter and wet weather driving



Make sure your vehicle is in good condition for cold weather motoring.

Points for winter and wet weather driving:

- check the lights, brakes, tyres, windscreen wipers, steering, radiator and battery regularly;
- anti-freeze in the radiator is recommended for the ACT;
- do NOT drive with dirty or fogged up windows;
- try your brakes cautiously to test your vehicles braking ability if the road is wet or icy;
- keep well back from the vehicle ahead. It takes at least twice the distance to stop when the road is wet or icy;
- apply the brakes gently when stopping, as harsh braking may cause the vehicle to skid;
- always test your brakes after driving through water;
- watch for icy patches on the road, in areas shaded by trees, and on timber bridges or exposed windy stretches.

Snowy and icy conditions



Points for snowy and icy driving:

- even if you do not plan to leave your vehicle, carry adequate warm and protective clothing to ensure comfort, and survival, in the event of a breakdown or delay;
- check the tread on all tyres including the spare;
- use anti-freeze in the radiator;
- carry a tool kit that includes a jack and wheel brace, a strong tow rope and a shovel;
- snow chains must be carried in certain areas of the Snowy Mountains, eg Kosciusko National Park;
- do not put off fitting chains until you have become stuck;
- find a safe place to fit snow chains to your vehicle. The middle of the road is not a safe place.

Steep hills



Steep descent

Points for steep hills:

- when driving down a steep hill reduce speed and engage a suitable low gear in good time. This applies to both manual and automatic vehicles;
- use the brakes as little as possible. If you must brake, do so on a straight stretch of road using controlled pressure on the pedal;
- when following another vehicle down hill allow at least three times the following distance you would under normal conditions (ie a six second rule).

Towing

When towing a caravan, trailer or horse float, note the following points:

- a caravan or trailer being towed must be securely attached to the towing vehicle;
- use a safety chain;
- slow down well in advance of corners and accelerate lightly through;
- avoid hard braking through corners;
- be careful when descending hills or overtaking as your vehicle's braking performance will be reduced;

- make sure any load in a towed trailer is evenly distributed and secured carefully. Avoidable injuries and deaths have been caused by poorly secured loads;
- the weight of the trailer and its load may be up to 1.5 times the unladen weight of the towing vehicle. However, the vehicle or tow bar manufacturer may impose a lower towing limit.

Unsealed roads

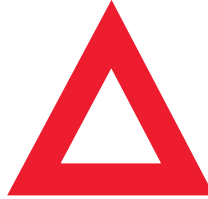


When driving on loose surfaces:

- reduce speed;
- reduce speed further when approaching another vehicle - loose stones thrown up by a vehicle's tyres can shatter a windscreen;
- do not brake or accelerate harshly. Remember, ABS braking may actually increase your braking distance on gravel;
- do not allow your vehicle to drift out on corners. Loose dirt and gravel builds up on the outside of corners and can cause loss of vehicle traction and steering control;
- watch for corrugations and potholes in the road;
- approach all river crossings with caution - they may be deeply rutted.

Emergencies and what to do

Skids



Skids occur when the force exerted on the tyres by acceleration, braking or cornering overcomes the grip of the tyres on the road. Excessive speed is often a major factor causing skids.

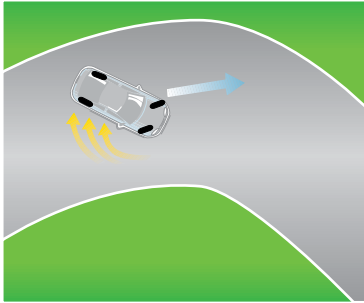
The risk of skidding is also greatly increased when:

- the driver brakes, accelerates or steers harshly;
- the road surface is loose, wet or icy;
- the vehicle's steering or suspension is worn;
- the brakes grab or pull to one side;
- the tyres are worn, inflated to the wrong pressure, or are mismatched – eg, a combination of radial and crossply.

To avoid the risk of skidding, you should:

- approach corners cautiously - reduce speed early;
- always brake, accelerate and steer smoothly, when negotiating a corner;
- be aware of your vehicle's performance and handling characteristics;
- allow for changing road conditions.

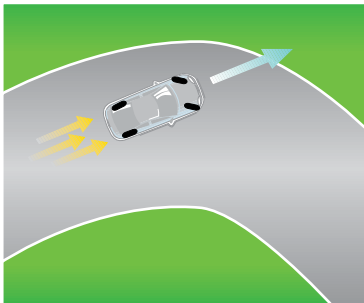
Rear wheel skid



Cause: Excessive braking or deceleration when entering a corner. In rear wheel drive cars, this type of skid can be caused by excessive acceleration when exiting a corner.

What to do: Ease back on the accelerator (or the brake if braking) and steer in the direction in which the rear of the vehicle is sliding. When the slide is under control, gently steer in the direction you wish the vehicle to travel.

Front wheel skid



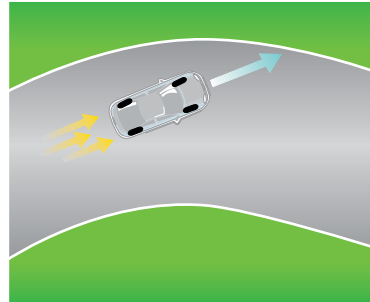
Cause: Excessive speed/excessive braking/harsh steering when entering a bend or corner. Steering control is lost as the vehicle continues in a straight line instead of following the intended course.

In front wheel drive cars, this skid can also be caused by excessive acceleration while cornering.

What to do:

- if the skid is caused by excessive speed or harsh steering, unwind steering slightly while easing off the accelerator. Brake firmly, but not hard enough to cause the front wheels to lock up;
- when steering control is regained, continue at your reduced speed and steer towards your intended direction;
- if caused by excessive braking, reduce brake pedal pressure sufficiently to allow front wheels to begin rotation again and steering control to be regained.

Four wheel skid



Cause: Excessive braking.

What to do: Release the pressure on the brake pedal but do not remove your foot from the pedal. Then re-apply the brakes so as to not re-lock the wheels.

The best skid is NO skid at all.

Possible head-on collision

If another vehicle is travelling towards you and a head-on collision appears imminent you should:

- brake firmly without locking the wheels, while flashing your lights and sounding your horn;
- give the approaching vehicle as much room as possible and look for an escape route if necessary; and
- prepare for further evasive action which may include pulling off the road away from the path of the oncoming vehicle.

Forced off the road onto gravel

If you have been forced onto the gravel surface at the edge of the road,

- maintain a firm grip on the wheel while continuing to drive in a straight line; and
- slow your vehicle speed and check for traffic before re-entering the road again.

Shattered windscreen

Most modern windscreens have laminated safety glass and will crack rather than shatter.

- some older vehicles may have windscreens that will shatter;
- if this occurs, slow down by braking smoothly and pull to the side of the road as soon as possible.

Tyre blow-out or rapid puncture

If your vehicle encounters a puncture or rapid tyre deflation you should;

- keep a firm grip on the steering wheel;
- do not oversteer to correct any vehicle swerve or pull;
- take your foot off the accelerator;
- once the vehicle is under control gently apply the brakes;
- slow down and pull over to the side of the road; and
- if your vehicle is fitted with hazard lights, switch them on to warn other motorists.

A front wheel puncture will tend to cause the vehicle to pull in the direction in which the puncture has occurred while a rear wheel puncture will tend to cause the vehicle to swerve from side to side.

Brake failure

If you push the brake pedal down and the vehicle does not stop or slow down, you are experiencing brake failure. If this happens;

- it may help if you pump the brake pedal hard and fast;
- move to a lower gear whether you are driving a manual or automatic vehicle;
- gently apply the handbrake to slow the vehicle being careful not to lock the wheels;
- use your horn and flash your lights to warn other motorists;
- move your vehicle to the side of the road;
- carefully bring the vehicle to a stop using the handbrake; and
- if your vehicle is fitted with hazard warning lights switch them on to warn other motorists.

Car fire

If you see or smell smoke coming from any part of the vehicle;

- slow down and stop immediately and turn the engine off;
- assist all passengers to get out of the vehicle and move well away as petrol may cause an explosion;
- if a fire extinguisher is available use it to extinguish the flames;

- disconnect the battery if at all possible or if this is not practicable, rip loose any burning wires with a handy instrument;
- **do not touch** burning wires or insulation with your bare hands as severe injury could result; and
- call for emergency assistance as soon as possible.

Stuck accelerator

If you release the accelerator pedal to reduce speed and the car continues at the same speed or increases speed, the accelerator is stuck. If this happens;

- depress the clutch in a manual car or select N for Neutral in an automatic vehicle;
- apply firm pressure on the brakes without locking the wheels;
- find a safe place to pull off the road and stop;
- once the vehicle has stopped turn the engine off;
- move your vehicle to the side of the road;
- carefully bring the vehicle to a stop using the handbrake; and
- if your vehicle is fitted with hazard warning lights switch them on to warn other motorists.

Breakdowns and accidents

When a breakdown or accident occurs:

- try to move your vehicle off the road;
- activate vehicle hazard warning lights to alert approaching traffic of potential danger. It is a good idea to carry a red light or a triangle of red reflective material. In an emergency place the warning sign on the road at least 50 metres before the obstruction on the same side of the road;
- if you are attending a crash scene or a broken down vehicle at night or in fog etc, NEVER obscure the tail-lights;
- in case of a crash, switch off the ignition of crashed vehicles to reduce the risk of fire.

Interfering with the driver's control of the vehicle

A passenger must not:

- interfere with the driver's control of the vehicle; or
- obstruct the driver's view of the road or traffic.

Towing and being towed

Before towing another vehicle or being towed you should note the following points:

- your tow rope or solid towing bar should be long enough to keep a safe space between the two vehicles. The maximum allowable distance between vehicles is 3.5 metres;

- a white flag or cloth must be displayed on the tow rope (at night the flag must be illuminated by a white light and the rear of the towed vehicle must carry a red light);
- the tow rope or other flexible link between the vehicles needs to be kept taut. Slight pressure on the brake pedal can be used to achieve this;
- a licensed driver must be in charge of the towed vehicle;
- when stopping or slowing down the towed vehicle should brake first;
- if moving at low speed or creating a traffic obstruction, warn other road users by switching on the hazard lights;
- if the vehicle's engine will not run, power assistance will not be available for steering or brakes and considerable additional effort and pressure will be needed to operate both systems.

What to do after a crash

If you are involved in a crash causing injury to any person or animal, or damage to any property, the law requires you to stop your vehicle.

If your vehicle is obstructing traffic after a crash, move it to the side of the road, if possible. The law does not require the vehicle to be left where it stopped after a collision.

If required, give your name and address, the name and address of the owner of the vehicle and its registered number to:

- a police officer;
- any injured person;
- someone acting on behalf of an injured person;
- any person whose property has been damaged.

The Police need not be called to attend a crash, if damage to vehicles or property is only minor and the parties do not dispute the facts. However, you must report all vehicle crashes in person to the police as soon as possible. Except in exceptional circumstances, this means within 24 hours.

