



Causes of Accidents

Module 2



Module Objectives

By the end of this module you should;

- Be able to identify the risks of speeding.
- Be able to identify the effects of alcohol, drugs and kava.
- Be able to identify the distractions while driving.

1 SPEEDING

1.1 1. Factors of Speeding

- Speed continues to be a major contributing factor in road crash on our Fiji roads and a critical determinant of injury. Despite on-going public education campaigns on the dangers of speeding, the incidence of speed as a factor in fatalities on Fiji roads during the past five years has been increasing. Speed often occurs during work-related driving because of time constraints from busy workloads. However, it is far better to arrive late for a meeting than be killed or seriously injured in a speed-related crash.

1.2 Risks of Speeding

- It is important to understand that travelling at an inappropriate speed can put you and other road users at risk. There are two types of inappropriate speed:
 - travelling at excess speed, ie, faster than the speed limit posted on a particular stretch of road
 - Travelling at a speed that is wrong for the particular road and traffic conditions (such as bad weather or heavy traffic) even when it is within the speed limit.
- In most situations where speeding occurs, drivers are free to choose how fast they will go. So why risk your life and the lives of others by choosing to speed?

1.3 Risks of Crashes when Speeding

- Speeding increases your risk of being involved in a casualty crash where someone is killed or injured.
- Speed makes a big difference to your ability to stop. At 50 km/h, you can stop your car in 34 metres, but at 60 km/h, you may cover up to 43 metres before you can stop. This makes a significant difference to your chance of

being involved in a crash.

- If a crash does occur, the faster a vehicle is travelling at the time of impact, the more severe the injuries to the people involved.

1.4 Why does speeding increase the risk of crashing?

- The risk of crashing increases if you are speeding because:
 - you have less time to notice hazards like a child running onto the road in front of you
 - if you do notice a hazard, you have less time to work out what to do and then take action
 - braking distance is longer
 - you are more likely to lose control of your vehicle
 - other road users may misjudge your speed, thinking that you are travelling within the speed limit, and make a mistake.

For example, a pedestrian may run across the road or another driver may turn right across your speeding vehicle when the gap is not actually big enough.

2 ALCOHOL AND DRUGS

2.1 Alcohol

- Alcohol is a powerful drug, which slows down the processes occurring in the brain, so that you take longer to react to unexpected situations. It inspires a false sense of confidence, affects your judgment of speed, distance and risk, and reduces your co-ordination, turning avoidable hazards into potentially lethal ones.
- Just one drink will impair your driving to some extent. In addition, because the effects can be quite subtle to begin with, you may feel as though you are perfectly sober.
- It is almost impossible to calculate with any accuracy how much you can drink and be safe to drive, because everyone absorbs alcohol at a different rate, depending on sex, weight, metabolism, age, the type of drink consumed, and how much you have had to eat.
- If you drive after drinking alcohol or taking other drugs you are more likely to be involved in a crash, Alcohol or drugs by themselves are dangerous but the combined effect can be deadly.
- Enforcement of drunk driving and drug driving saves lives. Remember that every police vehicle is a 'booze bus' and the probability that you will be randomly breath tested is high.

- Your licence is a valuable privilege. Don't risk your licence, your life or the lives of others by driving after you have consumed alcohol and/or taken any drugs or drinks that affect your driving.

2.2 The effects of alcohol on driving

- Alcohol is absorbed quickly into the blood and travels rapidly to all parts of the body. It affects your brain's ability to make judgements and process information. It also impairs your consciousness and vision.
- Alcohol also gives you a false sense of confidence. You may take more risks than you would normally - but remember, alcohol slows down your reaction time to road hazards.

2.3 Blood Alcohol Concentration (BAC)

- Blood Alcohol Concentration is the quantity of alcohol in the body. It is measured by the weight in grams of alcohol present in 100 millilitres of blood. A person's BAC can be determined by analysing a blood, breath or urine sample.
- As soon as you start drinking, your BAC begins to rise and could take up to two hours to reach its highest concentration, especially if you have eaten a substantial meal at the same time. Even though you may not have had a drink for an hour or more, your BAC may still be rising.

2.4 What is the legal limit?

- It is an offence for a person who holds a Provisional, PSV or Heavy Goods Licence to drive, or attempt to drive with a BAC that exceeds 0%. The limit is Zero Alcohol.

2.5 How long does alcohol stay in your body?

- The body breaks down alcohol very slowly. A healthy person will take about one hour to get rid of the alcohol from one standard drink. So, if you have four standard drinks in an hour, it will take about four hours to get it all out of your system.

2.6 Effect of alcohol and other drugs on driving

- Many prescribed and non-prescribed drugs and medicines can seriously affect your driving ability. Drugs such as sedatives or tranquillisers may impair your concentration, make you drowsy and slow down your reaction time. Medications for the common cold or travel sickness can have the same effect. These side effects may last several hours. If you are taking any drugs or medications, check with your doctor or chemist about the effect they may have on your driving ability.

No amount of coffee or soft drink will sober you up - only time can do that.

If you drink alcohol and drive, you will find it difficult to:

- judge the speed of your vehicle;
- judge the distance between your car and other cars;
- notice traffic control signals,
- see pedestrians and other potential hazards;
- concentrate on the task of driving;
- keep your balance, especially on a motorcycle (or on a bicycle, or as a pedestrian); and
- stay awake when you are driving.

2.7 Random Breath Testing (RBT)

- Police may stop motorists and require them to take a breath test. It is a serious offence to refuse a breath test. To pass the test you must be under the limit of 0% BAC for provisional, PSV, Heavy Goods drivers and extraordinary driver licence holders, or 0.35 per cent, BAC for drivers with full licences.

What the LAW says!

Learners Permit Holders/Provisional License Holders/ Heavy Goods License Holders/ PSV License Holders 0mg/100ml of blood.
Private Motor Vehicle Drivers with Full License must not have more than 35mg/ 100ml of breath.

3 DRIVER FATIGUE

3.1 Fatigue Related Crashes

- Most fatigue crashes happen within the first three hours of the trip.
- One third of fatigue crashes happens between 10pm and 6am.
- The driver is usually alone in the vehicle.
- The crash often happens in the country.
- The crash is likely to result in death or serious injury.
- The journey is often work related.

What to do?

- Avoid driving when you would normally be asleep.
- Break every two hours whether you feel tired or not.

3.2 Feelings or Behaviors

- It is very easy to say, "I feel a bit tired but I reckon I'll be okay". Feelings can be suppressed. It is more difficult to suppress or ignore behaviour. If you notice you are doing something differently, such as the points listed above you are affected by fatigue.

4 DISTRACTIONS

- There is so much to pay attention to when you drive. You have to see what is going on around you. You need to be sure that other drivers know where you are and what you plan to do. You have to keep adjusting your speed and vehicle position to driving conditions. You have to be alert to any surprises that might turn into emergencies.
- With all these going on, you need to be sure that no distractions inside your car will take your attention away from your driving and increase your risk.
- Eliminate distraction wherever possible. Physical discomfort can take your mind off the road, so dress in loose-fitting clothes, wear sensible footwear, adjust your seat to a comfortable position, and visit the toilet before you depart.

- Tidy up the interior so that there are no loose items to fall about when you accelerate, brake or corner, Make sure that the driver's foot area is kept clear, because if something were to roll under the pedals, it could prevent you from applying the brake in an emergency

4.1 How can distractions hinder your driving ability?

- Imagine that you are driving along on a busy highway. Suddenly you see a car beside you that you have never before, so you take your eyes off the road ahead for just a second to get a closer look. Just then another car pulls ahead of you, and you have to brake hard. You have let yourself become distracted from your driving responsibilities. You almost crashed into another car.
- Many events can distract you as you drive. It's important to be aware of these distractions so that you can be a safe and responsible driver

4.2 A car radio can distract you

- Most cars have radios, tape and CD decks, but do not let yourself become so interested in the music that you forget to pay attention to your driving. Don't forget; loud music can mask useful information
- Your concentration must be focused on driving. Looking for and changing tapes or CDs is a distraction and very dangerous. Risk is increased any time you take your eyes off the road or drive with only one hand on the wheel.

4.3 Headphones can be Dangerous

- If you are wearing headphones, you may not be able to hear another car honking its horn at you. You might lose your concentration if you are too absorbed in what you are hearing on your headphones. Put them away, you can listen to your personal stereo at other time. Your job is to pay attention to your driving

4.4 Passengers can distract you

- Sometimes the people in your car want you to pay more attention to them than to your driving.

e.g They might ask you to turn around and look at what they are doing
- Sometimes they can be talking so loudly that you cannot even hear yourself think. At other times, passengers may try to roughhouse in the car or hang-out the windows

- You are responsible for the safety of your passengers, and it is your responsibility to tell them to sit still or be quiet.
- You can explain that you will pay attention to them when you get where you are going. You are not being rude but being a safe and responsible driver.
- Little children can become restless on long trips. They can start fighting with each other or try to take off their safety belts. You can make sure that children behave by telling them the rules before you start driving and by keeping, them quietly occupied or have some reading books available.
- You also have to think about children's needs. To avoid boredom, children need to have something to do. Make sure you have some tape cassettes or CD's for them to listen to in the car or quiet games for them to play. Be mindful of the volume though you can also stop more often than you normally would and let the children get out and stretch their legs.

4.5 Smoking

- Don't Smoke and Drive
- Smoking seriously damage your health. In the long-term smoking while driving can kill you in seconds. For as long as that cigarette lasts, it is placing you and your passengers in jeopardy.
- To start with, concentration is lost while you search for the cigarette packet and lighter. To light up you have to take one hand off the wheel (Two hands are needed to light a match).
- Once the cigarette is lit, you need one hand to hold it or remove it from you lips. The ash has to be flicked somewhere, which means using the ashtray or flicking it out of the open window (with a risk of it being blown back into your eyes).
- Sometimes when the smoker tries to take the cigarette from their mouth it sticks to the lips, so that the hand slides down, nipping off the hot tip, which drops into the lap causing your attention to be diverted yet again.
- When the cigarette is finished it must be extinguished and disposed of. Using the ashtray involves taking a hand off the wheel, throwing the cigarette out of the window could injure cyclists or pedestrians, or cause grass fires.

4.6 Mobile Phones - Dialing for disaster

- Cell phones are an important part of everyday life, but using a wireless phone while driving increases your chance of getting into a crash. So what can you do? How can you be a safe driver if you absolutely have to use your phone while traveling? The best option is to;
- Pull off the road and stop in a safe place before using your phone.
- When the phone rings, let it ring! It's better to use your phone's voicemail or even miss a call than to put yourself, your passengers or others at risk, or
- Turn off the phone before driving

4.7 External Distractions

- The urge to "get a good look" at the scene of an accident or at cars that have been stopped by police can be almost overwhelming. Remember, letting your concentration be diverted by these common driving distractions can be deadly:
 - Roadside activities such as accidents or vehicles stopped by police
Friends in other vehicles
 - Roadside advertising
 - Construction areas
 - Scenic views
 - Pedestrians walking on side of the road

4.8 Other Distractions

- Driving with animals in the car can be dangerous. A dog can suddenly jump on your lap. Alternatively, a cat can crawl under your feet and land on the gas pedal. You have to plan if you are going to take an animal in your car.
- Keep them caged for the duration of the trip, or ask a friend to come with you and hold the animal by its leash. Many drivers become distracted in traffic jams. They get stuck for a long time and lose their concentration. Remember, even when you are stopped, it is important to pay attention to everything that is going on around you

5 DRIVING AND MOBILE

The mobile phone distracts drivers in two ways:

It causes physical distraction as well as cognitive distraction

- Physical distraction occurs when drivers have to operate a mobile phone (i.e. reach, dial, hold) and their vehicle simultaneously.
- Cognitive distraction occurs when a driver has to divert part of his attention from driving to the telephone conversation. The ability to divide one's attention between two simultaneous tasks is limited. Therefore, mobile phone use while driving can have negative effects on the driving performance.

What makes mobile use so dangerous and why?

- What happens when a driver engages in mobile phone conversation and drives at the same time? The 'impairment' potential of mobile phone usage while driving has been the focus of various behavioural studies. Although studies differ in the extent of behavioural changes they found, most of them give an affirmative answer to the question whether using a mobile phone while driving negatively affects different aspects of driving performance
- Slower reactions and more misses. The phone conversation results in a significantly slower response to traffic signals as well as in an increased probability of missing them.
- Braking. It has been found that the braking reaction time is slower during a telephone conversation. The decrease found in reaction time ranges from 0.3 to 0.7 seconds. During mobile phone use, drivers brake with more force, i.e. they stop faster. However, despite this more intense braking, they come to a standstill closer to the vehicle in front, a stopping line, or an intersection.
- General awareness of other traffic. All three elements of situation awareness (perception, comprehension and projection) show a significant decline due to the concentration demanded by car phone conversation.
- Riskier decision-making. Commonly encountered traffic situations (e.g. stopping at red light) tend to provoke cautious decision-making, but during less common or more complicated and therefore difficult events (e.g. weaving, left turns), a significant negative impact of a telephone conversation has been detected. Drivers accept shorter gaps, make fewer speed adjustments, and show poor adjustment to potentially dangerous road conditions such as a slippery road.

Module Summary

The module summarizes the risks of speeding and effects of alcohol and drugs while driving. It also provides information on different types of distractions while driving.