Fatigue: Be Awake to Your Responsibilities

Fatigue is an acute or ongoing state of tiredness that affects performance, safety and health, and requires sleep for recovery.

Fatigue may affect a person’s judgment of his or her own state of fatigue. This means effective fatigue management should not be the responsibility of the driver alone. Employers, employees and all parties in the supply chain have a role in ensuring that any risks associated with fatigue are eliminated, minimised or controlled through the creation of an effective fatigue-management system.

Education about the effects, causes, symptoms, and strategies to prevent and combat fatigue is to encourage all parties in the Chain of Responsibility (CoR) to recognise and commit to their responsibilities of fatigue management for heavy truck drivers.

At harvest time the risk of accidents and injuries resulting from fatigued driving by heavy truck drivers are high, due to a combination of:

- Limited scope for and efforts to plan working hours and trips.
- Unpredictable hours.
- Limited opportunities for continuous seven to eight hours’ sleep.
- Disrupted sleep patterns.
- Short rest breaks.
- Working/driving between midnight and 6.00 am.
- Monotonous driving tasks, including loading, repetitive trips, queuing and unloading.

Effects of Fatigue

Fatigue is more than falling asleep at the wheel. Fatigue describes the feeling of being tired, drained or exhausted. It causes poor judgment, impaired coordination and slower reactions, and impacts on how well a person functions. Fatigue builds, leading to a progressive loss of alertness that ultimately ends in sleep and is a major contributing factor in many road crashes.

The effects of fatigue include:

- Falling asleep at the wheel.
- Feeling drowsy.
- Micro sleeps.
- Loss of alertness, which may result in less efficient vehicle control.
- Slower reaction times.
- Reduced hand-eye coordination.
- Increased error rates.
- Increased likelihood of accidents and injuries.
- Reduced ability to concentrate and avoid distraction and to recognise risks.
- Reduced ability to think clearly, which is vital when making safety-related decisions and judgments.
- Poor memory, being unable to remember sections of the journey.
- Poor interpersonal communication.
- Mood changes.
- Irritability, agitation, aggression.
- Overreacting, including to events that would not normally be upsetting.

Driving is a complex mental and physical task requiring sustained levels of concentration and skill to maintain maximum performance. No driver can afford to be fatigued nor can anyone else afford a driver to be fatigued.
Symptoms of Fatigue

The symptoms of fatigue may vary from person to person, and may increase in number and degree as a person becomes more fatigued.

The symptoms of fatigue that may be experienced by a driver include:

- Desire to sleep.
- Difficulty concentrating and easily distracted.
- Wandering, disconnected thoughts, daydreaming.
- Poor judgment and decision making.
- Inability to remember driving the last few kilometres.
- Hallucinating.
- Headaches and/or dizziness.
- Feeling irritable or restless.
- Difficulty holding head up.
- Eyes close momentarily or go out of focus.
- Sore or watering eyes.
- Inability to stop yawning.
- Poor steering or braking too late.
- Drifting over the centre line or over the road shoulder.
- Not noticing road signs and hazards early enough.
- Missing turns.
- Missing gear changes.
- Approaching corners too fast.
- Changing speed without noticing.

The symptoms of fatigue that may be observed include:

- Difficulty concentrating and easily distracted.
- Poor judgment and decision making.
- Irritable or aggressive behaviour.
- Difficulty following directions.
- Reduced vigilance.
- Reduced capacity for effective interpersonal communication.
- Reduced hand-eye coordination.
- Slow reaction times.
- Difficulty holding head up.
- Eyes close momentarily.
- Sore, red or watering eyes.
- Eyelids droop.
- Inability to stop yawning.
- Poor steering or braking too late.
- Drifting over the centre line or over the road shoulder.
- Not noticing road signs and hazards early enough.
- Missing gear changes.
- Approaching corners too fast.
- Signs of drug or alcohol use, including:
  - slurred speech
  - smell of alcohol on breath
  - poor coordination
  - irritability
  - violence.
Causes of Fatigue

Time of day/body-clock/circadian rhythm
- The body has natural rhythms that are repeated approximately every 24 hours, this is called the body-clock or circadian rhythms.
- The body-clock programmes a person to sleep at night and stay awake during the day.
- The best time for good quality sleep is in the early morning hours, midnight to 6 am.

Length of sleep
- The average daily sleep required for an adult is generally between 6 to 8 hours.

Sleep debt
- People who get less sleep than necessary will incur a sleep debt.
- It is not necessary to repay every hour of sleep debt immediately. However, if a sleep debt is not properly managed, driving performance could be as poor as if the legal alcohol limit was exceeded.
- Every day that sleep is insufficient, a driver is more fatigued and therefore more dangerous.
- Fatigue will also build if sleep is lost over consecutive days as the effects of fatigue are cumulative.

Sleep inertia
- Sleep inertia is the feeling of grogginess that occurs after waking. It usually lasts between one minute and four hours, but typically lasts no more than 15 - 30 minutes. It may temporarily reduce the ability to safely perform some tasks, such as driving.

Lengthy periods of awake time
- Being awake for 17 hours impairs performance to the same level as having a 0.05 blood alcohol content.
- Being awake for 20 hours impairs performance to the same level as having a 0.10 blood alcohol content.

Insufficient recovery time
- Following periods of awake time, particularly periods of strenuous mental or physical work.

Alcohol and other drugs - effect on sleep
- Too much caffeine can stop a person from sleeping when they want to, as well as reducing their quality of sleep.
- Large amounts of alcohol before bedtime will reduce the quality and amount of sleep a person can get.
- Some prescribed medications can cause drowsiness.
- Stimulant drugs have many side effects resulting in increased fatigue.

Alcohol and other drugs - effect on driving
- The effect of alcohol is very similar to the effect of fatigue. After consuming alcohol the only way to reduce its effect is to allow time.
- Caffeine can have the effect of perking up an individual for a short amount of time. The more caffeine consumed, the more the body adapts to its consumption and so it has less of a stimulant effect.
- Caffeine dehydrates the body which is problematic when driving.

Work factors
- Long or excessive hours.
- Poorly managed loading and distribution.
- Poor trip planning.
- Inadequate staff numbers.
- Work environment.
- Role and responsibilities.
- Secondary employment.

Health factors
- Poor health can decrease energy levels and alertness and the ability to cope with long and tiring work.

Lifestyle factors
- Family responsibilities.
- Social activities.
Strategies to Prevent and Combat Fatigue

Sleep is the only effective long-term strategy to prevent and manage fatigue. Fatigue due to sleep loss is usually reversible after several nights of good quality sleep. The most beneficial sleep is a good night’s sleep taken in a single continuous period.

Timing of Sleep
- Consider the body clock when scheduling breaks for sleep or naps.
- The best time for good quality sleep is in the early morning hours, midnight to 6 am.
- Sleep at the onset of tiredness is recommended, if at all possible.

Length of Sleep
- An adult generally requires 7 to 8 hours of sleep daily.
- When individuals get less sleep than they need in a day, they build a sleep debt which accumulates until they can get enough sleep to overcome the sleep debt.
- It may take several days before someone recovers from a sleep debt.

Quality of Sleep
- Room temperature 18 - 22 degrees.
- Phone volume turned down or off.
- Ask family/housemates to be quiet.
- Closed blinds and curtains, eye-mask.

Nap
- Short term measures such as taking naps can help compensate for lack of sleep.
- Naps are not a substitute for continuous sleep.
- A nap before the start of a trip can help prevent fatigue.
- Avoid extremes of temperature and take breaks when relief from extremes is available.
- A minimum of a 10 minute up to a 45 minute nap can help prevent fatigue. If a longer nap is needed, allow up to 80 - 90 minutes so that waking should occur during a shallower sleep.
- After a nap it can take some time to wake-up completely and get over the sleep inertia. Build in a wake-up period to get going again.

Health
- Maintaining a basic level of fitness and a good diet will help drivers to be fit for work.
- Drivers should keep weight in check.
- Short rest breaks should be combined with exercise, such as walking and stretching.
- Drink plenty of water and eat fresh food including fruit and vegetables.
- Plan to eat no less than three hours before going to sleep.
- See a doctor for the proper diagnosis and treatment of any medical conditions.

Drugs and alcohol
- Avoid illegal drugs.
- Avoid alcohol in advance of and while driving.
- Limit consumption of alcohol, it affects quality of sleep.
- Limit caffeine, it affects the quality of sleep.
- Discuss with your doctor over the counter and prescription medication to ensure it will not cause or increase fatigue or inhibit the driving task.

Facilities
- Provide adequate facilities for rest, sleep, meal breaks, onsite accommodation (if appropriate) and other essential requirements, such as bathroom facilities.

On the road
- Keep the cab at a comfortable temperature.
- Get fresh air into the cab.
- Drink plenty of water.
- Use caffeine only when needed, it is only a very short term solution.
- Pull over for a rest as soon as you recognise the early warning signs of fatigue.
- Do not take drugs in an effort to combat fatigue.
Manage boredom

- Even with adequate sleep, a monotonous trip can make a driver less alert. Mental games and habits can be developed to help keep alert, such as calculating distances.
- Listen to music, radio or talking books.
- Chat on the CB radio.

Planning

- Start the harvest period without a sleep debt.
- Be realistic about how much sleep is needed to be a safe driver.
- Wherever possible set schedules that allow for sleep, naps and rest breaks.
- Plan and schedule naps to coincide with natural drowsiness, 14:00 - 16:00 or 12:00 - 06:00. Build in a wake-up period to get going again.

Work hours

- Develop procedures for long daily work hours, with mandated and additional breaks, if total hours exceed a set limit.

Offset night work with appropriate rest

- Keep night work to a minimum, particularly sequential nights’ work.
- Provide an adequate period of non-work following a sequential nights’ work.
- Try to allow at least two full nights’ sleep following sequential nights’ work.
- Try to get a minimum of four hours sleep at night.
- Try to give as much advance warning of night work.

Work culture

- Encourage workers to take a break when needed.
- Allow adequate and regular breaks so workers can rest, eat and rehydrate.
- Provide information to workers on short-term measures to prevent and counteract fatigue. Make sure that all parties understand the limitations of these short-term measures.

Additional staff

- Use alternate drivers to ensure each driver has sufficient time for sleep, rest breaks, eating and exercising.
- Ensure there are adequate workers and other resources to do the job without placing excessive demands on staff.

Record keeping

- Keep records of driver names, dates worked, number of trips, length of trips, start and finish times.

Resources

The below resources were referred to in compiling this fact sheet. They are all available online.

*Guidelines for Managing Heavy Vehicle Driver Fatigue*, NTC Australia

*Fatigue Prevention in the Workplace*, WorkSafe Victoria and WorkCover New South Wales

*Draft Code of Practice, Preventing and Managing Fatigue in the Workplace*, Safe Work Australia