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## Fatigue

To work safely, workers should be physically and mentally alert. This means that fatigue is a potential risk. Persons conducting a business or undertaking (PCBUs) and workers have a responsibility to manage fatigue at work.

### What is fatigue?

Fatigue is a state of physical and/or mental exhaustion. It can reduce a person's ability to perform work safely and effectively. Fatigue reduces alertness. This may lead to errors, and an increase in workplace incidents and injuries.

There are various causes of fatigue, some of them inter-related. These include:

- **Work schedules - hours of work, night work and shift work (including breaks between shifts):** Long work hours, irregular work hours, and schedules that require night work can cause fatigue. These schedules limit the time for a person to physically and mentally recover from work. Working at night interrupts the natural sleeping rhythm, which can cause fatigue.
- **Sleep disruption:** Everyone needs a particular amount of sleep to stay alert and perform well. People generally need between 7.5 and 9 hours of sleep a night. The most beneficial sleep is deep, undisturbed and taken in a single continuous period. When the length and quality of sleep each day is disrupted, fatigue may result.
- **Environmental conditions:** Climate extremes (such as working outside in winter), noise and handling vibrating tools place demands on workers and increase fatigue.

- **Physical and mental work demands:** Physically demanding work can increase fatigue. Mental demands can also increase fatigue, such as tasks that require periods of intense concentration.
- **Emotional well-being:** Work events can be emotionally tiring and increase fatigue, such as regular criticism or the pressure to complete a task to a deadline. Non-work events can also cause distress and lead to fatigue - for example: when a person faces the loss of a loved one or tries to resolve personal conflicts.

### PCBUs - responsibilities in managing fatigue

PCBUs must ensure, so far as is reasonably practicable, the health and safety of workers, and that others are not put at risk from their work.

PCBUs must eliminate risks that arise from their work so far as is reasonably practicable. If a risk can't be eliminated, it must be minimised so far as is reasonably practicable.

PCBUs may need to manage the risks that arise from fatigue. Strategies to reduce the risks of fatigue include:

### Work schedules

- Make sure your workers take regular, quality, rest breaks in their working day. Under the Employment Relations Act 2000, employees are entitled to rest

and meal breaks that provide a reasonable chance during work periods to rest, refresh and take care of personal matters. The breaks must be appropriate for the length of their working day.<sup>1</sup>

- Make sure working hours are not too long. If longer working days are required, consider staggered start and finish times, and/or longer rest breaks and periods off work (and carefully monitor a worker's ability to cope).
- Schedule tasks suitably throughout a work period. A person's ability to be alert or focus attention is not constant throughout the day. For most people, low points occur between 3.00 am and 5.00 am, and between 3.00 pm and 5.00 pm. During these low-function times, adopt a conservative approach to safety and avoid critical jobs. Critical jobs may include: tasks performed at a height; tasks with manual handling demands; tasks where a worker must enter a confined space; tasks which involve the use of mobile plant.
- Negotiate with your workers if overtime is required. Monitor and place limits around overtime worked. Avoid incentives to work excessive hours.
- Monitor and place limits around shift swapping and on-call duties.

## Sleep

- Design rosters well to allow for good sleep opportunity and recovery time between work days.
- Make sure that rosters are designed to remove any sleep debt. (**Note:** sleep loss is cumulative.)
- Design rosters that minimise disruptions to natural sleeping rhythms. Avoid work starts before 6.00 am where possible. If night work is required, limit the number of night shifts in a row that your workers can work.

## Workplace or environmental conditions

- Avoid working during periods of extreme temperature, or minimise exposure through job rotation.
- Provide adequate facilities for rest breaks.
- Provide drinking water.

## Physical and mental work demands

- Limit periods of excessive mental or physical demands (ie through job rotation).
- Ensure fit for purpose plant, machinery and equipment is used at the workplace.
- Make sure workloads are manageable. Take into account work flow changes due to factors such as machinery breakdowns, unplanned absences or resignations. Avoid impractical deadlines.

## Emotional well-being

- Where possible, be aware of personal circumstances that affect your workers and provide support. Allow time off where circumstances require. As appropriate, ensure co-workers are aware of any important issues affecting their colleagues.
- Create a positive work environment where good relationships exist and workers are encouraged and supported. Provide good supervision.

## Workplace fatigue policy

- Develop a fatigue policy for all workers, managers and supervisors. This policy should include information about: maximum shift length and average weekly hours; work-related travel; procedures for reporting fatigue risks; procedures for managing fatigued workers.
- Make sure anyone can report fatigue-related issues to both supervisors and management.
- Investigate incidents where fatigue may be involved.
- Train your new workers on fatigue management.

**Once these strategies are implemented, you should monitor and review them to ensure fatigue is managed effectively.**

## Workers – responsibilities in managing fatigue

PCBUs don't have the sole responsibility to manage fatigue at work. Workers must take reasonable care of their own health and safety. They must take reasonable care that what they do, or don't do, doesn't adversely affect the health and safety of others.

Workers should:

- Turn up in a state fit for work, having done everything possible to get a good sleep and rest.
- Inform your manager or supervisor if a task is beyond your capabilities.
- Recognise the signs and symptoms of fatigue. They include: feeling (constantly) tired, having little energy, feeling 'sluggish', excessive yawning or falling asleep at work, less vigilant, bad moods, forgetfulness, inability to concentrate, poor communication, poor decision-making, reduced hand-eye coordination and slower reaction times. Other symptoms not so obvious to others include: feeling drowsy, headaches, dizziness, blurred vision or impaired visual perception and a need for extended sleep during days off work.
- Communicate with your manager or a supervisor if you start showing the signs and symptoms of fatigue. Also make managers and supervisors aware of other workers who may be fatigued.
- Report fatigue-related incidents.

<sup>1</sup> For more information about the Employment Relations Act requirements see: [www.employment.govt.nz](http://www.employment.govt.nz)

## Practical steps to minimise fatigue

- **Sleep:** People generally need between seven and a half and nine hours of sleep a night to maintain health and alertness. Adequate, good quality sleep is essential to maintain and restore full physical and mental functioning. It is the only way to recover from fatigue.
- **Promote better sleep:** If it is hard to get good-quality sleep, try: keeping a regular sleep schedule by going to sleep and waking up at the same time daily; sleeping in a dark room; avoiding using electronics directly before sleep; eliminating noise; not eating large meals directly before sleep; exercising regularly; changing to a different bed. Look at sleep-specific websites for more advice. If that does not work, consult a sleep expert.
- **Take breaks during and between shifts:** Use this rest and recovery time appropriately to restore energy and alertness.
- **Nutrition:** Eat a balanced diet, particularly foods that provide a steady release of energy throughout the day (eg whole grains). Drink sufficient amounts of water. One way to determine if you are well hydrated is by the colour of your urine – if it's a dark colour you need to drink more water.
- **Stimulants:** Coffee and nicotine provide only short-term relief from the effects of fatigue. When the stimulants wear off, there is usually a 'crash' and poor-quality sleep may result. Sleeping tablets can reduce fatigue if properly used for limited periods (seek medical advice before use). Drugs and prescription medications should not be used as a substitute for getting adequate rest.
- **Work/life balance:** Have a life outside of work and 'switch off' after work hours. Continue any personal hobbies (ie sports, social group meet-ups etc).

**If fatigue and sleepiness persists, see a doctor.**

## Fatigue checklist

Fatigue is often caused by a number of inter-related factors. This checklist provides a guide to identify the risks of fatigue, but it is not exhaustive. If the answer is yes to any of the questions, fatigue risks may need to be assessed and strategies may need to be put in place to manage fatigue.

| <b>FATIGUE CHECKLIST</b>  |  |
|---|--|
| <b>Mental and physical work demands</b>   |  |
| Does anyone carry out physically demanding work for long periods? (for example, tasks which are especially tiring and repetitive such as bricklaying, process work, moving bags of cement)  | <input type="radio"/> Yes <input type="radio"/> No |
| Does anyone carry out mentally demanding work for long periods? (for example, work requiring vigilance, work requiring continuous concentration and minimal stimulation, work performed under pressure, work to tight deadlines, emergency call outs, interacting/ dealing with the public) | <input type="radio"/> Yes <input type="radio"/> No |
| <b>Work scheduling and planning</b>   |  |
| Does anyone consistently work or travel between midnight and 6 am?  | <input type="radio"/> Yes <input type="radio"/> No |
| Does the work schedule prevent workers having at least one full day off per week?   | <input type="radio"/> Yes <input type="radio"/> No |
| Does the roster make it difficult for workers to consistently have at least two consecutive nights sleep per week?  | <input type="radio"/> Yes <input type="radio"/> No |
| Do work practices include on-call work, call-backs or sleepovers?   | <input type="radio"/> Yes <input type="radio"/> No |
| Does the roster differ from the hours actually worked?  | <input type="radio"/> Yes <input type="radio"/> No |
| Does the work roster include rotating shifts?   | <input type="radio"/> Yes <input type="radio"/> No |
| Does anyone have to travel more than one hour to get to their job?  | <input type="radio"/> Yes <input type="radio"/> No |
| <b>Work time</b>  |  |
| Does anyone work in excess of 12 hours regularly (including overtime)?  | <input type="radio"/> Yes <input type="radio"/> No |
| Does anyone have less than 10 hours break between each shift? (for example, split shifts, quick shift changeovers)  | <input type="radio"/> Yes <input type="radio"/> No |
| Is work performed at low body clock times (between 3 am and 5 am or 3 pm and 5 pm)?   | <input type="radio"/> Yes <input type="radio"/> No |
| <b>Workplace or environmental conditions</b>  |  |
| Is work carried out in harsh or uncomfortable conditions? (for example, hot, humid or cold temperatures)  | <input type="radio"/> Yes <input type="radio"/> No |
| Does anyone work with plant or machinery that vibrates?   | <input type="radio"/> Yes <input type="radio"/> No |
| Is anyone working with hazardous chemicals?   | <input type="radio"/> Yes <input type="radio"/> No |
| Is anyone consistently exposed to loud noise?   | <input type="radio"/> Yes <input type="radio"/> No |
| Is drinking water available for workers to maintain hydration?  | <input type="radio"/> Yes <input type="radio"/> No |
| <b>Non-work factors</b>   |  |
| Are workers arriving at work fatigued?  | <input type="radio"/> Yes <input type="radio"/> No |

## Further information

For more guidance about managing fatigue, go to WorkSafe's website: [www.worksafe.govt.nz](http://www.worksafe.govt.nz)

Safe Work Australia's *Guide for Managing the Risk of Fatigue at Work* (2013) has been used in the development of this quick guide. This can be accessed at: [www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)