



# A healthy workplace is good for business

## FATIGUE MANAGEMENT

### What is fatigue?

Fatigue refers to mental or physical exhaustion that stops a person from being able to function normally. It is more than simply feeling tired or drowsy. Fatigue is caused by prolonged periods of physical and/or mental exertion without enough time to rest and recover.<sup>1</sup>

Fatigue is generally caused by:

- spending long periods of time awake
- having an inadequate amount and/or quality of sleep over an extended period.<sup>1</sup>

Factors both in and outside of the workplace can be a source of fatigue.

Fatigue can be a major source of stress among employees, and fatigue can significantly affect an employee's capacity to function. It can impact on an employee's performance and productivity, and increase the potential for workplace injuries to occur.<sup>2</sup>

Being awake for 17 hours is the equivalent of having a blood alcohol level of 0.05.

Being awake for 20 hours is the equivalent of having a blood alcohol level of 0.1.<sup>3</sup>



If you believe any of your employees are showing signs of fatigue, it is important to identify the contributing factors – the workplace may be one of them. You can use the information provided in this fact sheet to help your employees manage work-related fatigue.

You can also use this fact sheet to assist your employees to manage factors outside of the workplace that may be contributing to their fatigue.

If fatigue is not relieved by enough sleep, and by addressing contributing factors such as good nutrition and a low-stress environment, it is a good idea for the person to seek professional help.<sup>3</sup>



## What causes fatigue?

While fatigue is generally caused by lack of sleep or poor-quality sleep, there are several work-related and non-work related factors that can contribute to its development.

**Table 1: Factors influencing fatigue<sup>3</sup>**

Work-related factors influencing fatigue	Non-work related factors influencing fatigue
<ul style="list-style-type: none"> <li>■ Extended hours of work</li> <li>■ Shift work</li> <li>■ Inadequate time for sleep between shifts</li> <li>■ Early or late shifts</li> <li>■ Job design</li> <li>■ Working in a second job</li> </ul>	<ul style="list-style-type: none"> <li>■ Extended commuting times</li> <li>■ Heavy family and social obligations</li> <li>■ High level of community activities</li> <li>■ Emotional issues (for example, relationship pressures)</li> <li>■ Age</li> <li>■ Poor health and fitness levels</li> </ul>

## What can employers do to manage employee fatigue?

There are a number of actions that employers can take to help manage the factors that influence fatigue, especially in work-related circumstances.

**Table 2: Guidance for employers<sup>3</sup>**

Factors	Recommended actions
<b>Hours of work</b>	
<ul style="list-style-type: none"> <li>■ Employees working extended hours</li> </ul>	<ul style="list-style-type: none"> <li>■ Ensure there is sufficient cover for staff on annual or sick leave. If overtime is necessary, plan for it so employees can schedule their activities around it</li> <li>■ Limit overtime to ensure staff are getting sufficient breaks between shifts</li> </ul>
<ul style="list-style-type: none"> <li>■ Employees working overtime after long shifts</li> </ul>	<ul style="list-style-type: none"> <li>■ Limit overtime for staff working long shifts in accordance with your own organisational policy (which should be based on a risk assessment of your workplace)</li> </ul>
<ul style="list-style-type: none"> <li>■ Employees working a second job</li> </ul>	<ul style="list-style-type: none"> <li>■ Have a policy on second jobs—ensure that employees understand the obligation to get sufficient sleep and to be fit for duty</li> </ul>
<b>Shift work</b>	
<ul style="list-style-type: none"> <li>■ Poorly designed rosters</li> </ul>	<ul style="list-style-type: none"> <li>■ Ensure the roster provides for a continuous seven to eight hours of sleep in each 24 hours, and at least 50 hours sleep for every seven days</li> <li>■ If on a rotating three-shift roster system, use forward rotation (day/afternoon/night) which is tolerated better by most workers</li> </ul>
<ul style="list-style-type: none"> <li>■ Sleep debt               <ul style="list-style-type: none"> <li>□ Acute sleep debt as a result of poor sleep on the first few nights of night shift</li> <li>□ Cumulative sleep debt (e.g. less than seven to eight hours of sleep between each work shift) over several shifts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Limit number of consecutive night shifts to four</li> <li>■ End night shifts by 8 am</li> <li>■ Ensure there is a minimum of 12 hours between consecutive shifts</li> <li>■ Ensure roster allows for at least two full nights' sleep after the last night shift</li> <li>■ Allow short naps of up to 15 to 20 minutes during the shift if it fits in with the type of work that is being done</li> </ul>



<ul style="list-style-type: none"> <li>■ Risk of accident               <ul style="list-style-type: none"> <li>□ People who have had less than five hours' sleep have an increased risk of a car accident while driving</li> <li>□ Accident risk increases by 30 per cent by the fourth night shift</li> <li>□ Accident risk increases by 27.5 per cent on 12-hour shifts, compared with eight hours on duty</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Consider whether 12-hour night shifts are really necessary</li> <li>■ Use additional control measures, such as two-hourly breaks of at least five to ten minutes duration</li> <li>■ Have a room for workers to sleep in before commuting home</li> </ul>
<ul style="list-style-type: none"> <li>■ Other risk factors               <ul style="list-style-type: none"> <li>□ Night shift workers have a greater risk of developing obesity, diabetes and heart disease</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Encourage healthy eating at work</li> <li>■ Provide access to healthy food options at work, for example, healthy vending machine options</li> </ul>
<b>Time of day</b>	
<ul style="list-style-type: none"> <li>■ Start times before 6 am give workers less time to get adequate sleep, as it is very difficult to go to sleep during the early evening (6-9 pm), as our internal body clocks are set for alertness during this time</li> </ul>	<ul style="list-style-type: none"> <li>■ Minimise morning starts before 6 am</li> <li>■ Avoid more than five consecutive early morning starts</li> <li>■ Encourage car pooling or provide transport</li> </ul>
<b>Work design</b>	
<ul style="list-style-type: none"> <li>■ Low alertness on night shift between 3-5 am presents increased accident risk</li> </ul>	<ul style="list-style-type: none"> <li>■ Avoid safety-critical tasks during the early hours of the morning, have greater supervision, have regular breaks</li> </ul>

You could also consider engaging a specialist consultant who can help you design your rosters and workplace to avoid causing fatigue.



## What can employees do to manage their fatigue?

There are a number of actions that employees can take to help manage their fatigue, whether it is work-related or non-work related. The following information may be useful to pass on to employees.

**Table 3: Guidance for employees<sup>1</sup>**

Factors to consider	Recommended actions
Diet for night shift workers	<ul style="list-style-type: none"> <li>■ Be prepared and organised beforehand—bring healthy meals and snacks to night shift</li> <li>■ Eat a balanced nutritious diet, including plenty of fruits and vegetables</li> <li>■ Stick to normal day shift meal times as far as possible</li> <li>■ Don't eat between 3 am and the end of night shift</li> <li>■ Avoid large meals one to two hours before sleeping</li> <li>■ Avoid high-energy (high-fat), high-carbohydrate meals during night shift</li> </ul>
Recovering from or preparing for work	<ul style="list-style-type: none"> <li>■ Have an afternoon nap before the first night shift</li> </ul>
Personal factors affecting sleep	<ul style="list-style-type: none"> <li>■ Avoid excessive alcohol as this can disturb your sleep</li> <li>■ Avoid caffeine after midnight when on night shift</li> </ul>
Medical conditions affecting sleep, such as sleep apnoea	<ul style="list-style-type: none"> <li>■ Seek medical advice</li> </ul>
Poor sleep environment	<ul style="list-style-type: none"> <li>■ Install heavy curtains that keep the light out</li> <li>■ Reduce the volume of the telephone and the television – don't keep them in the bedroom</li> <li>■ Insulate the house and/or have air conditioning on to drown out background noise</li> <li>■ Keep the bedroom cool</li> <li>■ Let neighbours and friends know that you are a shift worker and when you need to sleep so they don't mow lawns or visit at these times. Use a simple sign on the door, or in a window that neighbours and visitors can see.</li> </ul>
Poor sleep practices (e.g. watching television in bed, drinking coffee or alcohol or eating a heavy meal before going to bed)	<ul style="list-style-type: none"> <li>■ Get into a routine for going to sleep (e.g. take a warm shower or relaxing bath before going to bed, listen to soothing music)</li> <li>■ Avoid heavy meals, alcohol and tea or coffee before going to bed</li> </ul>
Poorer sleep quality, more fragmented and less deep restorative sleep in people over 45 years of age	<ul style="list-style-type: none"> <li>■ Consider moving out of shift work if you find you are more a 'morning' person and cannot get enough sleep when on night shifts</li> </ul>
Hectic social life	<ul style="list-style-type: none"> <li>■ Plan your social activities and ensure you get sufficient sleep before starting work</li> </ul>
Second jobs	<ul style="list-style-type: none"> <li>■ Follow your employer's procedures about disclosure</li> <li>■ Ensure you get adequate sleep for both jobs</li> </ul>

### References

1. The University of Western Australia, Safety and Health, Fatigue management, [www.safety.uwa.edu.au/health-wellbeing/health/fatigue](http://www.safety.uwa.edu.au/health-wellbeing/health/fatigue)
2. Better Health Channel, Victorian Government, Fatigue explained, [www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Fatigue\\_explained](http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Fatigue_explained)
3. Workplace Health and Safety Queensland 2008, *Managing fatigue: a guide for the workplace*.