

FACT SHEET

FATIGUE IN CONSTRUCTION

Construction work involves high-risk activities. To work safely, construction workers must be physically and mentally alert. This means that fatigue is a potential risk. Employers and employees have a responsibility to manage fatigue in the workplace.

WHAT IS FATIGUE?

Fatigue is a state of physical and/or mental exhaustion which reduces 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:** Construction work can be physically demanding which 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.

EMPLOYERS - RESPONSIBILITIES IN MANAGING FATIGUE

Employers have a duty to take all practicable steps to ensure employees are safe at work.¹ Fatigue is a workplace hazard that employers must manage. Various strategies are available for employers to reduce the risks of fatigue. These include:

Work schedules

- > Make sure your employees take regular, quality, rest breaks in their working day. Employers must allow a minimum of two paid 10-minute rest breaks and one unpaid 30-minute meal break if the work period is six to eight hours long.² Consider extra rest breaks if the work is demanding.

¹ Health and Safety in Employment Act 1992, s 6.

² Employment Relations Act 2000, s 69ZD.

- > 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 3.00am and 5.00am, and between 3.00pm and 5.00pm. 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 employees 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. This is due to sleep loss being cumulative.
- > Design rosters that minimise disruptions to natural sleeping rhythms. Avoid work starts before 6.00am where possible. If night work is required, limit the number of night shifts in a row that your employees can work.

Environmental conditions

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

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 employees 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, and then improvements will follow. Investigate incidents where fatigue may be involved.

- > Train your new employees on fatigue management.

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

EMPLOYEES - RESPONSIBILITIES IN MANAGING FATIGUE

Employers do not have the sole responsibility to manage workplace fatigue. Employees must take all practicable steps to keep themselves, and other people around them safe.³

Employees 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.

Practical steps to minimise fatigue

- > **Sleep:** People generally need between 7.5 and 9 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 fluid.
- > **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.

³ Health and Safety in Employment Act 1992, s 19.

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 will need to be assessed and strategies put in place to manage fatigue.

MENTAL AND PHYSICAL WORK DEMANDS	
Does anyone carry out work for long periods which is physically demanding? (for example, tasks which are especially tiring and repetitive such as bricklaying, process work, moving bags of cement)	Yes/No
Does anyone carry out work for long periods which is mentally demanding? (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)	Yes/No
WORK SCHEDULING AND PLANNING	
Does anyone consistently work or travel between midnight and 6am?	Yes/No
Does the work schedule prevent workers having at least one full day off per week?	Yes/No
Does the roster make it difficult for workers to consistently have at least two consecutive nights sleep per week?	Yes/No
Do work practices include on-call work, call-backs or sleepovers?	Yes/No
Does the roster differ from the hours actually worked?	Yes/No
Does the work roster include rotating shifts?	Yes/No
Does anyone have to travel more than one hour to get to their job?	Yes/No
WORK TIME	
Does anyone work in excess of 12 hours regularly (including overtime)?	Yes/No
Does anyone have less than 10 hours break between each shift? (for example, split shifts, quick shift changeovers)	Yes/No
Is work performed at low body clock times (between 3am and 5am or 3pm and 5pm)?	Yes/No
ENVIRONMENTAL CONDITIONS	
Is work carried out in harsh or uncomfortable conditions? (for example, hot, humid or cold temperatures)	Yes/No
Does anyone work with plant or machinery that vibrates?	Yes/No
Is anyone working with hazardous chemicals?	Yes/No
Is anyone consistently exposed to loud noise?	Yes/No
NON-WORK FACTORS	
Are workers arriving at work fatigued?	Yes/No

FURTHER INFORMATION

This fact sheet has been developed using the following guides, all available from WorkSafe New Zealand:

- > *Managing shift work to minimise workplace fatigue: A guide for employers.*
- > *Healthy Work: Managing stress and fatigue in the workplace.*
- > *Stress and Fatigue: Their impact on health and safety in the workplace.*
- > *Stress and fatigue: Reducing their impact – advice for employers and employees.*

The 'Guide for Managing the Risk of Fatigue at Work'⁴ written by Safe Work Australia has also been used in developing this fact sheet. This can be accessed at: www.safeworkaustralia.gov.au

⁴ Safe Work Australia. (2013). Guide for Managing the Risk of Fatigue at Work. Retrieved from www.safeworkaustralia.gov.au