Environmental conditions

Working in harsh and uncomfortable conditions can contribute to fatigue, for example, exposure to heat, cold, vibration or noisy workplaces can make workers tire quicker and impair performance.

Non-work related factors

Factors occurring outside of work may also contribute to fatigue. A worker's lifestyle, family responsibilities, health (e.g. insomnia, sleep apnea, some medication), other work commitments, and extended travel between work and home may all increase the risk of fatigue.

Controlling the risks

The best way to control the health and safety risks arising from fatigue is to eliminate the factors causing fatigue at the source.

If elimination is not reasonably practicable, the risks must be minimized.

What is reasonably practicable to do to manage the risk of fatigue will vary depending on the type of industry, the structure of an organization as well as the person carrying out the work.

FATIGUE CHECKLIST

This checklist provides guidance to assist in identifying risks of fatigue but is not an exhaustive list of risk factors. If the answer is yes to any of the questions, fatigue risks may need to be further assessed and control measures implemented

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, felling trees)	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 2 am and 6 am)?	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

SAFER

Safety Advisory Foundation for Education & Research

#300—3920 Norland Avenue
Burnaby, BC
V5G 4K7
Tel: 604-683-1117 * Fax: 604-688-6416
www.safer.ca

Special thanks to Safe Work Australia

SAFER
Safety Advisory Foundation for Education & Research
www.safer.ca

WORKPLACE FATIGUE

Fatigue:

"Reduced ability and/or inclination to perform mental or physical work as a result of too much effort (mental or physical) and not enough recovery" **-Professor Philippa Gander**

How can the risks of fatigue be managed at the workplace?

Measures to manage the risks associated with fatigue will vary from one workplace to the next, depending on the nature of the work, environmental conditions and individual factors.

The risks associated with fatigue can be managed by following a systematic process which involves:

- identifying the factors which may cause fatigue in the workplace
- if necessary, assessing the risks of injury from fatigue
- controlling risks by implementing the most effective control measures reasonably practicable in the circumstances, and
- reviewing control measures to ensure they are working as planned.

Consulting workers

Consulting workers at each step of the risk management process encourages everyone to work together to identify fatigue risk factors and implement effective control measures. Consultation also helps to raise awareness about the risks of fatigue.

Consultation involves sharing information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Workers and their health and safety representatives must be consulted, so far as is reasonably practicable when:

• planning and designing work schedules and rosters

• making decisions on how to manage the risks of fatigue

• proposing changes to working hours, work schedules and procedures

• making decisions about providing information and training on fatigue

• after an incident or 'near miss' where fatigue was a factor.

Factors that may contribute to and increase the risk of fatigue

The first step in the risk management process is to identify all reasonably foreseeable factors which could contribute to and increase the risk of fatigue. There may not be obvious signs of fatigue at the workplace but this does not mean it is not occurring or factors which may increase the risk of fatigue are not present.

Fatigue is often caused by a number of inter-related factors which can be cumulative. The major factors contributing to and increasing the risk of fatigue involve:

Work schedules – shift work, night work, hours of work, breaks

Work schedules which limit the time workers can physically and mentally recover from work may cause fatigue, for example early shift start times or late finishes, short breaks between shifts, shifts lengthened by overtime or double shifts and not enough non-sleep rest breaks during a shift.

Working at night when the body is biologically programmed to sleep can interrupt a person's body clock. The body clock is the body's natural rhythm repeated every 24 hours. It regulates functions including sleeping patterns, body temperature, hormone levels and digestion. As it is programmed for different levels of wakefulness, people experience different levels of alertness depending on the time of the day.

When a person's body clock is out of step alertness decreases making them feel fatigued. This increases the risk of making errors and causing incidents and injuries, either in the workplace or outside of work, including on the way to and from work.

Job demands

Some types of work, for example concentrating for extended periods of time, performing repetitious or monotonous work and performing work requiring continued physical effort can increase the risk of fatigue.

Workers can be mentally and physically fatigued at the same time. Work which is reactive and performed under high pressure, for example emergency services, may also increase the risk of fatigue.

Sleep – length of sleep time, quality of sleep and time since sleep

While tired muscles can recover with rest, the brain can only recover with sleep. The most beneficial sleep is deep undisturbed sleep taken in a single continuous period.

The optimum amount of sleep varies for each person, however, an adult generally requires seven to eight hours of sleep daily.

When individuals get less sleep than they need in a day, they build up a sleep debt which accumulates until they can get enough sleep to overcome the sleep debt. Each extra day without enough sleep increases the debt, and when it becomes large enough fatigue can occur. It may take several days before a person recovers from a sleep debt. Sleep debt is common with night shift workers as they often experience difficulty getting enough undisturbed sleep during the day.