Fatigue risk in the workplace

Fatigue is a common form of impairment in the workplace. Fatigue is normal. Most workers will be fatigued at some point on the job. Employers are responsible for managing the risk of harm at work when workers may be fatigued. This document provides an overview of fatigue, the risk it presents in the workplace, and what can be done about it.

What is fatigue?

Fatigue is a change in physiological state described as being tired or drowsy. Fatigue can diminish capacity for work or ability to function at the desired level.

Contributing factors

Insufficient quantity and quality of sleep are the two most common causes of fatigue.

Not getting enough sleep or having poor sleep can disrupt our natural, 24-hour sleep/wake cycle (known as a *circadian rhythm*). These disruptions can be driven by both work-related and non-work-related factors.

Work-related factors that can affect fatigue levels include the types of tasks workers carry out, the environment, and shift schedules, as shown in the following table.

Task	Environment	Schedule
Repetitive	 Temperature 	 Irregular hours
• Strenuous	Noise level	 Extended hours
Boring	 Light level 	 Night shifts
 Sustained mental or physical effort 	 Vibration 	 Shift rotation patterns
Complex	 Humidity 	 Back-to-back shifts
	 Low stimulation 	 Overtime

Effects of fatigue

Fatigue directly affects a person's ability to carry out even simple tasks. Fatigue impairs the following mental and physical functions:

•	Reaction time	•	Complex planning	•	The ability to communicate
•	Alertness and vigilance	•	Information processing		effectively
•	Decision making	•	Memory and recall	٠	Concentration

The risk of fatigue in the workplace

Every workplace has hazards that can cause harm (e.g., injury, illness, or property damage). Fatigue can increase the potential for this harm and/or adverse outcomes.

Incidents occur more often on night shifts, during extended shifts, and when there are inadequate breaks. Research indicates the number of hours awake can be compared to blood alcohol content in terms of causing impairment. Studies report the following:

- 17 hours awake is equivalent to a blood alcohol content (BAC) of 0.05 B.C.'s legal limit to operate a motor vehicle.
- 21 hours awake is equivalent to a BAC of 0.08 Canada's legal limit.
- 24 to 25 hours awake is equivalent to a BAC of 0.10.

Who is most at risk?

Fatigue affects everyone, regardless of their levels of skill, knowledge, and training. Shift workers are at the highest risk because they may work at times when their bodies have the strongest drive to sleep.

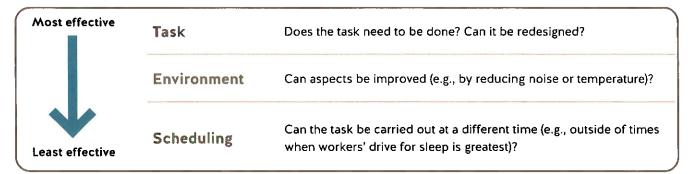
The body's circadian rhythm regulates when we feel sleepy or alert. The greatest drive for sleep generally occurs between 2 and 4 a.m. and from 1 to 3 p.m.

What can be done?

When dealing with fatigue in the workplace, managing risk involves three steps:

- 1 Identify hazardous workplace activities or tasks where being fatigued could increase the risk of harm.
- Assess how fatigue may increase the risk of harm from the hazard.
- Control the hazard by applying effective risk-control measures (ideally at the source of the hazard).

The table below shows how to effectively control workplace factors that influence fatigue. Use it as a guide to eliminate or reduce the risk of harm.



For more information

WorkSafeBC resources

For more information and resources about fatigue in the workplace, visit worksafebc.com/fatigue.

Questions?

Email humanfactors@worksafebc.com



Additional Control Measures / Safeguards for Fatigue

Tips while at work:

- Vary work tasks so you stay alert
- Take regular breaks
- Tell your supervisor or manager if you're feeling fatigued
- Learn the warning signs of fatigue and to recognize them:
 - o Tiredness or sleepiness
 - Memory lapses
 - o Difficulty concentrating
 - Slower reaction times

Tips for outside of work:

- Make sleep a priority
- Improve the quality and quantity of your sleep
 - o Have a regular bed time
 - Make sure your bedroom is dark, cool, and comfortable
 - Seek help for sleep disorders
- Choose what you eat and drink carefully
 - o Eat light nutritious meals (heavy meals can make you drowsy)
 - o Drink plenty of water
 - o Minimize your caffeine and alcohol intake

Thank you,

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