

# Managing fatigue in the workplace

## Hazard advisory

Fatigue is a state of feeling exhausted or worn out, either in your body, your mind, or both—it can make it hard to think clearly, stay focused, or do a job safely. When workers are fatigued, they increase the risk of incidents and injuries to themselves, other workers, and the public. Most workers will experience fatigue at some point, which means that every workplace faces some level of risk.

As with any other hazard, employers and workers share a responsibility to manage fatigue and keep the workplace safe. This begins with performing a risk assessment for any work tasks that become unsafe if workers are tired. This process helps identify all fatigue-related hazards in the workplaces so that the most effective controls can be determined. It is important to include worker fatigue in all risk assessments and to note fatigue triggers.

All risk assessment should involve recognizing the hazards, assessing the risks, controlling the risks, and evaluating and reviewing the controls. This is known as the “RACE” method.

This hazard advisory explains how to apply the RACE method to a fatigue risk assessment and discusses the safety impacts of fatigue in construction workplaces.

### Safety impacts of fatigue

Fatigue does not just affect how workers feel—it creates serious safety risks on the job. Fatigued workers are less mentally sharp, have a higher risk of incidents. Controls must be developed to mitigate these risks in the workplace.

Sleep quality is a major factor in worker fatigue. Studies show that when workers get less than five hours of sleep or stay awake for more than 16 hours before work, their chance of making mistakes due to fatigue increases significantly.<sup>1</sup>

Working night shifts can confuse the body’s sleep-wake cycle and negatively impact sleep quality. Night shift workers should go to bed as soon as possible after work and get between seven and nine hours of sleep before their next shift.<sup>2</sup>

According to the Canadian Centre for Occupational Health and Safety (CCOHS), the effects of being awake for too long can be similar to the effects of alcohol:

- Staying awake for 17 hours is equivalent to having a blood alcohol content of 0.05
- Staying awake for 21 hours is equivalent to having a blood alcohol content of 0.08 (the legal blood-alcohol limit for driving in Canada)
- Staying awake for 24–25 hours is equivalent to having a blood alcohol content of 0.12<sup>3</sup>

Fatigue impacts work performance. According to the Government of Alberta, most incidents occur when people are more likely to feel tired: between midnight and 6 a.m. and between 1–3 p.m.<sup>4</sup> The province also reports that fatigue increases workers’ hazard exposure by:

- Reducing mental and physical functioning
- Impairing judgment and concentration
- Lowering motivation
- Slowing reaction time
- Increasing risk-taking behaviour<sup>5</sup>

Addressing work fatigue means looking at the whole picture—including physical, mental, and lifestyle factors (e.g., unhealthy diet, dehydration, and a lack of work-life balance).

## Applying the RACE method to fatigue hazard risk assessment

### 1. Recognize the hazards

Workers and supervisors play a key role in identifying fatigue early. Recognizing the warning signs can help prevent incidents and maintain a safe work environment.

Common signs of fatigue include:

- **Decreased alertness:** Difficulty staying focused, frequent daydreaming, or slower reaction times
- **Physical signs:** Yawning, drooping eyelids, slurred speech, or unsteady movements
- **Poor decision-making:** Difficulty making quick, sound decisions
- **Mood changes:** Irritability, frustration, impatience, or short temper
- **Reduced physical performance:** Lower strength, coordination issues, delayed responses

### 2. Assess the risks

Assessing fatigue risks can be challenging, because workplace contributing factors affect each worker differently. These factors can include physical labour, poor ventilation, inadequate lighting, cramped work spaces, lack of support, and poor work-life balance.

However, work factors that disrupt rest or disturb the body's internal sleep-wake cycle contribute to fatigue in most people. These factors include:

- Hours worked consecutively (i.e., working more than 12 hours a day)
- Length of shifts (i.e., working more than 10 days without a day off)
- Breaks during a shift (i.e., not taking allocated breaks)
- Frequent night shifts and on-call shifts
- Excessive travel time to work

Note: If workers must travel a long distance to a worksite, the employer should provide paid accommodations to minimize daily commuting time.

### 3. Control the risks — Employers

Hazard controls are steps taken to eliminate or minimize hazard risks. For fatigue, employers should take the following steps to prevent incidents and injuries:

#### Job planning

- Apply the hierarchy of controls whenever fatigue risk is identified.
- Conduct risk assessments for tasks that require sustained concentration, especially night work.
- Develop a formal process for assessing schedule changes or temporary work-hour extensions, as well as fitness for work.
- Implement clear fatigue-management policies, such as guidelines on work hours, breaks, and fatigue reporting.
- Each year, review how the work environment's design improves or reduces alertness in workers who perform safety-critical activities.

### **Scheduling**

- Limit shiftwork, especially overnight shifts, to essential tasks.
- Schedule low-risk tasks during high-fatigue periods.
- Ensure that breaks between shifts are long enough for workers to rest and to account for travel time.
- Limit overtime.
- Rotate workers through tasks to prevent mental fatigue. This is particularly important for operators of heavy machinery or mobile equipment.
- Never allow workers who are excessively fatigued to operate heavy machinery or mobile equipment.
- Have workers take rest breaks in a suitable location away from the work area.

### **Supervision**

- Assign adequate supervision for shiftwork, especially for high-risk tasks.
- Train managers and supervisors to recognize signs of fatigue and support workload management.

### **Workplace culture**

- Foster a positive safety culture where workers can report fatigue concerns without fear of repercussions.
- Encourage workers to get regular physical activity and to eat a healthy diet.
- Provide information on managing work- and non-work related fatigue, as well as access to mental health and counselling services.

## **Control the risks – Workers**

Workers have a responsibility to manage their own fatigue:

- Get enough rest and keep a consistent sleep schedule.
- Take breaks to recharge throughout the workday.
- Work in short bursts (e.g., 25 minutes at a time) followed by a short break (a.k.a. the Pomodoro technique).
- Be extra vigilant during the first few days of shiftwork.
- Take enough time between shifts to rest, recover, and commute to work.
- Report concerns about fatigue to the employer and joint health and safety committee (JHSC).
- Drink plenty of water throughout the day, as dehydration can lead to fatigue.
- Eat balanced meals that include proteins, whole grains, fruits, and vegetables.
- Get regular physical activity to boost energy levels and improve mood.
- Stretch or walk for a few minutes during breaks to reduce strain on the body.
- Connect with colleagues or friends to ease stress.
- Limit caffeine, especially in the afternoon and evening, to improve sleep.
- Avoid alcohol and nicotine, as these substances can reduce sleep quality and energy levels.

## 4. Evaluate the controls

The final step of the RACE method is to monitor and review risk assessments and the effectiveness of controls. During this process, consider the following questions:

- Were there any changes (e.g., to the work environment, processes, materials, etc.) that could affect the risk assessment?
- Were control measures implemented as planned?
- Did all workplace parties understand the control measures?
- Did the controls create any new health and safety issues?

Workplaces can review their risk assessments and control measures by:

- Consulting with employees.
- Monitoring sick leave and other work absences that might indicate fatigue.
- Considering whether fatigue was a contributing factor in workplace incidents, particularly if they occurred late in a shift.

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*This document was developed and reviewed by IHSA's Boilermakers Trade Labour-Management Health and Safety Committee.*

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1"Fatigue," Canadian Centre for Occupational Health and Safety, last modified June 6, 2025, <https://www.ccohs.ca/oshanswers/psychosocial/fatigue.html>.

2"How to Manage Sleep While Working Shifts," Canadian Men's Health Foundation, last modified June 29, 2023, <https://menshealthfoundation.ca/sleep/manage-healthy-sleep-working-shifts/>.

3"Fatigue," Canadian Centre for Occupational Health and Safety.

4"Fatigue, Extended Work Hours, and Safety in the Workplace," Work Safe Alberta, last modified August 2010, <https://open.alberta.ca/publications/erg015-ergonomics>.

5"Fatigue, Extended Work Hours, and Safety in the Workplace," Work Safe Alberta.