

## The dangers of fatigue in the workplace

Fatigue increases the risk of injuries or other accidents. As an employer, ensure your workers are not experiencing signs or effects of fatigue on the job. You can help make your workers and your business safer by including information on fatigue and sleep in your safety guidelines and orientations. You can also develop a fatigue management plan.

### What is fatigue?

*Fatigue* is a state of feeling very tired, exhausted, weary, or sleepy. Fatigue results from a lack of sleep and can be heightened from prolonged mental activity or long periods of stress or anxiety. Boring or repetitive tasks can also intensify feelings of fatigue. Fatigue can be acute or chronic.

*Acute fatigue* results from a sudden onset of short-term sleep loss, such as getting less sleep than normal before a work shift. Adequate sleep is necessary to reverse the effects of acute fatigue.

*Chronic fatigue* is a long-term state that results from an extended loss of necessary sleep. A sleep debt can build over weeks or months from a reduction or disruption of a normal sleep routine.

### Signs and symptoms of fatigue

Train supervisors and workers to recognize the immediate signs and symptoms of fatigue, which include the following:

- Tiredness or sleepiness
- Memory lapses
- Difficulty concentrating
- Slower reaction times

### Effects of fatigue

Studies indicate that the risk of making mistakes at work increases significantly if workers sleep for less than the average (7.5–8.5 hours) or are awake for more than 17 consecutive hours.

The effects of fatigue can reduce a worker's:

- Ability to make decisions
- Ability to do complex planning
- Communication skills
- Productivity and performance
- Attention
- Ability to handle stress
- Reaction time
- Ability to recall details
- Ability to respond to changes in surroundings or information provided

Fatigue can also result in:

- Inability to stay awake
- Increased forgetfulness
- Increased errors in judgment

Over the long term, fatigue can result in health effects, such as loss of appetite and digestive problems, and other chronic health conditions, including depression. These effects can result in:

- Increased sick time, absenteeism, and rate of turnover
- Increased medical costs

One study has shown that fatigue can have similar effects to drinking alcohol:

- 17 hours awake is equivalent to a blood alcohol content of 0.05 (the legal limit in British Columbia)
- 21 hours awake is equivalent to a blood alcohol content of 0.08
- 24–25 hours awake is equivalent to a blood alcohol content of 0.10

## Causes of fatigue

Fatigue is caused primarily by long hours of being awake. Other causes include extended shifts, shift rotations (days and nights), and irregular or disrupted sleep. Workplace factors, such as the following, can also increase feelings of fatigue:

- High temperatures
- High noise levels
- Dim lighting or poor visibility
- Work tasks that are long, repetitive, paced, difficult, boring, or monotonous

## Alcohol and caffeine

A lack of quality sleep can contribute to fatigue. Substances such as caffeine and alcohol can affect sleep quality and quantity, particularly if taken in the hours before bedtime. Alcohol may shorten the time to fall asleep, but it will disrupt sleep patterns.

## Medications

Prescription medications and over-the-counter medications can also affect sleep and may cause a sense of sleepiness and loss of alertness during work.

## Sleep disorders

Sleep apnea, narcolepsy, insomnia, and other disorders affect alertness. If workers are experiencing any symptoms related to sleep disorders they should seek a doctor's advice.

## How to help your workers stay safe

Create shift schedules that give workers enough time for continuous sleep.

If the job requires long hours or overtime, consider that your workers will need enough time for other daily activities, such as commuting, preparing and eating meals, socializing, and relaxing.

Provide a work environment that has good lighting, comfortable temperatures, and reasonable noise levels.

Ensure that jobs provide some variety, with work tasks that change throughout the shift. Be flexible when assigning tasks — assign workers who may be fatigued to tasks that aren't safety sensitive.

If your workplace has long shifts or frequent overtime, consider providing amenities, such as the following:

- Prepared meals
- On-site accommodations
- Facilities where workers can nap either during the shift or before driving home

## Tips for getting a better sleep

People need at least 7.5 to 8.5 hours of sleep a day. Studies have found that most night-shift workers get less sleep per week than those who work day shifts. The quality of sleep during the day is not the same as during the night.

Here are some guidelines you can pass on to your workers for improving quality of sleep:

- Go to bed and get up at the same time every day.
- Turn out the light immediately when going to bed.
- Don't read or watch television in bed.
- Make your room as dark and quiet as possible. Some people sleep better in a cool room.
- Establish regular eating times.
- Avoid caffeine, tobacco, and alcohol, especially before bedtime.
- Exercise regularly.

## Other resources

- [Human Factors Bulletin 2009-03](#) (WorkSafeBC)
- [HSE Human Factors Briefing Note No. 10: Fatigue](#) (Health and Safety Executive)
- [Shift Work and Fatigue online program](#) (Work Safe Alberta)