Fatigue Awareness and Prevention

Fatigue is a hidden safety and health (S&H) workplace risk capable of reducing employee productivity, increasing unsafe incidents, and causing financial impacts on your organization.

FATIGUE

Feelings of tiredness, sleepiness, and reduced energy, or increased effort is needed to perform tasks at a desired level

According to the National Safety Council (NSC), a typical employer with 1,000 employees can expect to lose more than $1 million per year due to fatigue. Organizations lose between $1,200–$3,100 per worker each year due to lost productivity from fatigued employees. To understand and manage this S&H risk at your organization, you must identify the contributing factors causing your employees' workplace fatigue. This one pager explains the effects of fatigue, lists some contributing factors and causes of fatigue, and provides solutions to prevent fatigue.

Effects of Fatigue

When an employee experiences fatigue, they experience a decrease in their ability to perform basic cognitive functions, which in turn, may lead to a decline in job performance **and** safety performance.

Figure 1 compares the effects of fatigue to alcohol consumption. Cognitive function decreases the longer an individual goes without sleep. For example, an employee awake for 19 hours experiences a decline in cognitive function comparable to a person with a blood-alcohol concentration (BAC) of 0.05%.

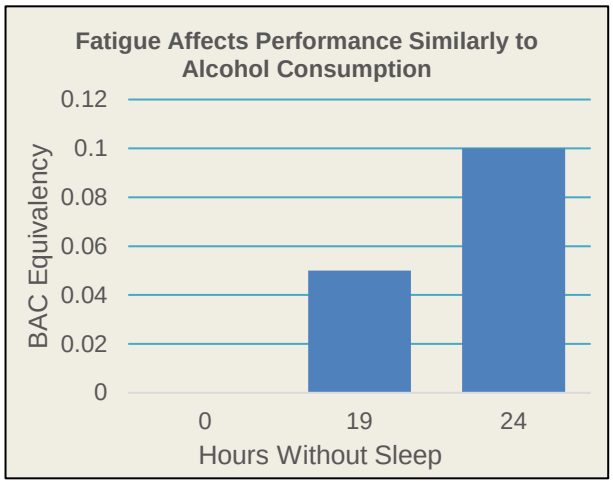

Figure 1. Comparison of equivalency between sleep deprivation and blood alcohol; graph created from data published in https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1739867/pdf/v057p00649.pdf

These factors are especially concerning if employees drive or operate vehicles at your organization. NSC research showed fatigued drivers are **3 times** more likely to be involved in a vehicular accident.

Additionally, the NSC demonstrated fatigued workers create economic strain on themselves, their employers, and society. Fatigue costs $136 billion per year in lost productivity due to health-related issues like depression, obesity, and cardiovascular disease.

Factors Contributing to Fatigue

Nearly everyone experiences some level of fatigue. It is important to determine the employees **most at risk** for fatigue in your organization. Those most at risk includes employees who may:

- Perform shift work
- Perform tasks for extended periods of time
- Have untreated sleep disorders
- Take medications known to interfere with sleep
- Perform repetitive tasks
- Get less than 7 hours of sleep
- Manage continual stress

Employees' assigned tasks, the organization itself, and the work environment itself cause employee fatigue. Examples include:

Task-Related Factors	Organizational Factors	Environmental Factors
• Type of task • Physical and mental demand • Repetition and/or high volume/frequency • Long, drawn-out tasks • Level of experience • Lack of variety	• Safety culture • Employee engagement • Leadership commitment • Company size • Type of industry • No Fatigue Risk Management Program (FRMP) • Scheduling • Employee compensation	• Noise • Vibration • Indoor air quality • Temperature (heat/cold stress) • Low lighting levels • Time of day

Fatigue Prevention

As an employer, implementing an FRMP is an effective method to prevent fatigue. A FRMP includes: a fatigue management policy, a risk management reporting system, a process for incident investigations, fatigue management-related training and education, sleep disorder management, and scheduled periodic reviews for continuous improvement. Figure 2 shows the cyclical actions your organization can take to address and prevent employee fatigue using an FRMP.

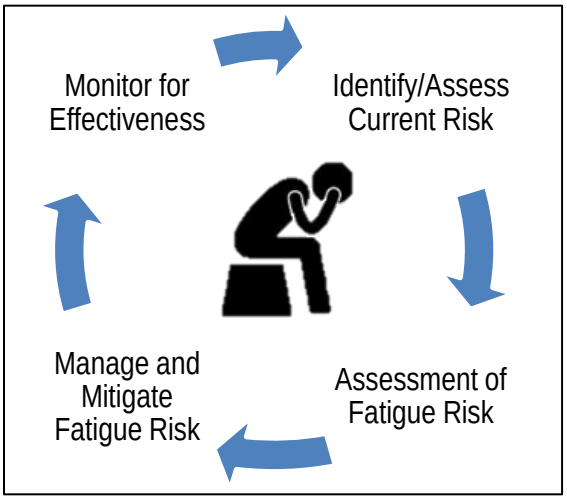

Figure 2. Actions to ensure an effective FRMP

The National Institutes of Health **recommends 7 or more hours of sleep per night** for adults ages 18 and older. Fatigue studies show more than 30% of employees admit to getting fewer than 6 hours of sleep per night.

As an employee, consider these sleep hygiene tips to help avoid fatigue:

- Align your body's "clock" with your work schedule – sleep during the day if you work night shift; maintain a consistent sleep schedule even on days off; and use blackout curtains to keep the bedroom dark and cool
- Avoid consuming caffeine, especially in the latter half of the day
- Exercise regularly, as studies have found exercise improves sleep quality
- Nap, if necessary, but be mindful of the duration (less than 45 minutes or greater than 2 hours)
- Talk to your doctors about possible sleeping disorders

For additional information on the SMCX's services, please visit the SMCX-hosted website at: https://www.smscx.org/.