

The 10 Dangers of Worker Sleep Deprivation



According to Circadian, sleep deprivation is an issue that's often ignored although it's frequently the root cause of decreased productivity, incidents and mistakes that cost companies billions of dollars each year.

Circadian says there are 10 dangers of having a sleep-deprived workforce:

1. Decreased communication

When workers are tired, they become poor communicators. In one study, researchers noted that sleep-deprived individuals:

- Drop the intensity of their voices
- Pause for long intervals without apparent reason
- Enunciate very poorly or mumble instructions inaudibly
- Mispronounce, slur or run words together
- Repeat themselves or lose their place in a sentence.

2. Performance deterioration

The average functional level of any sleep-deprived individual is comparable to the 9th percentile of non-sleep-deprived individuals. But workers don't always notice these performance declines. In fact, sleep-deprived individuals have poor insight into their performance deficits. Also, the performance deficits worsen as time on task increases.

3. Increased risk of becoming distracted

Sleep-deprived individuals have been shown to have trouble maintaining focus on relevant cues, developing and updating strategies, keeping track of events, maintaining interest in outcomes, and attending to activities judged to be non-essential. In fact, research suggests that there's a symbiotic relationship between sleep deprivation and attention-deficit hyperactivity disorder due to the overlap in symptoms.

4. Driving impairments

The trucking industry is well aware of the driving impairments associated with

sleep deprivation, but other industries may not be as informed. For example, plant managers may be unaware of the ways in which sleep-deprived workers may be dangerously operating machinery, such as forklifts or dump trucks. In fact, 22 hours of sleep deprivation results in neurobehavioral performance impairments that are comparable to a 0.08% blood alcohol level.

5. Increased number of errors

The cognitive detriments of sleep deprivation increase concurrently with a worker's time on a given task, resulting in an increased number of errors. These errors include mistakes of both commission (i.e. performing an act that leads to harm) and omission (i.e. not performing an expected task).

6. Poor cognitive assimilation and memory

Short-term and working memory declines are associated with sleep deprivation and result in a decreased ability to develop and update strategies based on new information, along with the ability to remember the sequence of events.

7. Poor mood appropriate behaviour

Sleep-deprived individuals may exhibit inappropriate mood-related behaviour in outbursts that can include irritability, impatience, childish humor, lack of regard for normal social conventions, inappropriate interpersonal behaviours and unwillingness to engage in forward planning.

8. Greater risk-taking behaviour

Brain imaging studies have shown that sleep deprivation is associated with increased activation of brain regions related to risky decision making, while areas that control rationale and logical thinking show lower levels of activation. In addition, sleep deprivation increases one's expectation of gains while diminishing the implications of losses. As a result, sleep-deprived workers may make riskier decisions, ignore potential negative implications and take gambles in scenarios in which the losses outweigh the benefits.

9. Inability to make necessary adjustments

Flexible thinking, preservation of thoughts and actions, updating strategies based on new information, ability to think divergently, and innovation are all negatively impacted by sleep deprivation.

10. Effects of sleep deprivation compound across nights

Four or more nights of partial sleep deprivation containing less than seven hours of sleep can equal a total night of sleep deprivation. And a single night of total sleep deprivation can affect your functioning for up to two weeks.

Bottom line: When you have sleep-deprived or fatigued workers, your productivity levels and quality of work will be compromised and you'll have an environment where it becomes not a matter of *if* your workplace will have an incident but *when* and *how serious* it'll be.

The OHS Insider has articles, tools and other resources you can use to address sleep deprivation and fatigue in your workforce, including:

- Why you should let workers take naps
- How to implement a fatigue risk management system
- A fatigue hazards identification checklist
- A model fatigue management policy
- An infographic on worker fatigue to warn workers of the dangers of not getting enough sleep.