



Employee Safety

Shift Work and Health: Why You Need a Strategy to Keep Your Workers Safe

Roland Jones | Oct 28, 2021

Shift work is common practice in the manufacturing industry, but without a proper strategy workers may experience elevated levels of injuries. Here's how you can keep your workers safe by ensuring they are not overly tired on the job.

Consider this scenario: Your shop unexpectedly receives a big order that requires it to increase production immediately. Management asks employees to work continuous shifts of up to 18 hours so that the production process is not interrupted. The facility will be open seven days a week, 24 hours a day, meaning more night shifts for more workers.

"We can't produce enough product if the machines are down for 12 or 16 hours per day," the production manager says. "That would double the cost of our products."

This situation is not uncommon in the manufacturing industry, where the idea of scheduling work in shifts was originally devised to permit workplaces to operate longer than the established standard workday, allowing for higher output and the highest return on investment.

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Health Affairs

Yet while shift work is essential to many manufacturers and is a common feature of the sector, it comes with downsides.

Irregular work schedules can lead to social problems and put employees at ***risk of shift work sleep disorders*** and other health problems, according to research. Workers with brain fog will be less productive on the job and may pose a safety risk to themselves and others.

It's a problem that has likely emerged in many workplaces over the past few years as companies have adjusted to new schedules amid the COVID-19 pandemic, and as manufacturers, in particular, sought to bring their workforces back safely and, more recently, meet elevated demand.

Now manufacturers must also contend with a worrying combination of supply chain snarl-ups, widespread parts shortages and hiring difficulties. Amid all these challenges, safeguarding the physical safety of workforces is vital.

So it's worth exploring ways for manufacturing companies to improve the health of their shift workers, and explore tips for shift workers to help themselves.

Read more: The Benefits of Focusing on Ergonomics in the Manufacturing Industry

The Dangers of Workplace Fatigue

The prevalence of fatigue in the American workforce is a serious safety hazard, leading to 13 percent of workplace injuries, according to **a report from the National Safety Council (NSC)**, and the cause of "**adverse effects** on employee health and safety, including obesity, cancer, cardiovascular disease and fatigue," according to **a report** in the NSC's Safety+Health magazine.

To mitigate the problem, the American Academy of Sleep Medicine (AASM) and the Sleep Research Society (SRS) recently released joint **guidance** on how to design optimal work shift durations.

As the research report's authors note, to date the risks associated with fatigue that accumulate during work shifts have been managed through working time arrangements that specify fixed maximum durations of work shifts and minimum durations of time off. But those arrangements, by themselves, "are not sufficient to curb risks to performance, safety, and health caused by misalignment between work schedules and the biological regulation of waking alertness and sleep."

Instead, companies should take "a more holistic view when setting customized shift durations for each individual workplace, considering not just physical fatigue, but mental fatigue, time of day, job requirements, safety risks, lifestyle factors, and health," **says Dr. Indira Gurubhagavatula**, corresponding author for the paper and a physician in the division of sleep medicine of the Perelman School of Medicine at the University of Pennsylvania in Philadelphia.

According to the AASM and the SRS, an employer should take an approach that includes the following three strategies when establishing work shift durations:

1. **Assess the risk factors:** The duration of work shifts is linked to adverse performance, safety and health outcomes, especially when shifts are misaligned with a worker's biological clock. Work shift timing, workload factors, commute time, other demands on people's time, and individual biological factors all contribute to the impact of shift durations. This means an overall assessment of the risk factors associated with work shifts in a particular setting is key to making informed decisions about optimal shift durations in that setting.
2. **Consider countermeasures:** Tools and strategies can be deployed in the workplace to reduce or manage risks associated with extended work shifts. Some are aimed at increasing sleep through nap opportunities or improving alertness with strategic caffeine consumption, while others target operational risk outcomes, such as quality control checks, warning systems and team-based work strategies. The choice of countermeasures should be based on assessment of the risks, the report advises. After implementation, both positive and negative effects should be monitored to identify any unintended consequences and evaluate opportunities for improvement.
3. **Use an informed approach:** Determining appropriate shift durations often involves finding an optimal compromise between competing goals. To ensure everyone understands the trade-offs, the decision-making process about shift durations should include the following criteria:
 1. Be fully informed, transparent and based on scientific evidence.
 2. Incorporate representatives of all stakeholders, and those whose lives and livelihoods would be directly impacted by changes to shift durations should be encouraged to participate in the decision-making process.
 3. Any changes made to shift duration work policies should be monitored and evaluated, with

corrective action taken in the event of unintended consequences.

Read more: Mental Health and the Workplace: Why It Pays to Support Manufacturing Workers

Shift Work and the Cost of Health Care

Another good reason to consider the health impact of shift work is the rising cost of health insurance for companies, as highlighted in ***a recent article*** in the health policy journal Health Affairs.

While employers have adopted various strategies to reduce healthcare costs, such as adopting high-deductible health plans or offering wellness benefits to incentivize healthier lifestyles, these efforts have had little effect on health outcomes, the article argues, and healthcare costs are continuing to rise.

The article notes that how company policies “contribute to employees’ illnesses and to rising healthcare costs” has been “largely absent from the conversation.”

Companies may try to ensure workplace safety and prevent immediate injury in accordance with requirements from the ***Occupational Safety and Health Administration***, but little emphasis has been placed on mitigating the long-term chronic health effects of shift work, the report says.

Shift work and long work hours can ***increase an employee’s risk of chronic illness***, the report notes, and ultimately contribute to ***sizable excess healthcare spending*** for companies. For one U.S. manufacturer employing 2,600 shift workers, such costs were reportedly ***\$1.3 million*** annually.

With the 24/7 production cycle in manufacturing, which necessitates shift work, unlikely to change soon, and despite new information about the high cost of shift work, the Health Affairs article’s authors suggest focusing on interventions to mitigate any health effects.

“Resulting research findings must be practical and actionable to make it easier for employers to identify and select interventions with the strongest evidence and greatest likelihood of improving health among shift workers,” the authors write. “It would be valuable to have clear guidance on which shift work schedules are least harmful to workers.”

What strategies or technologies are you using to deal with worker fatigue and the challenges of shift work? What have you found to be most successful? Share your thoughts in the comments below.

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