

COVID-19 & ERGONOMICS: WAIT, WHAT?

By James A. Junkin

The COVID-19 pandemic has forced millions to work from home, many working on laptop computers and mobile phones at makeshift workstations, often at kitchen tables or on sofas. While working remotely may help to protect workers against COVID-19, it is also leading to unexpected consequences.

The often ergonomically incorrect environments are contributing to neck, lower back and leg pain, and to the development of work-related musculoskeletal disorders (WMSDs) and potentially cumulative trauma disorders (CTDs). These painful injuries can lead to long-term disabilities for workers and affect businesses by increasing workers' compensation claims, reducing productivity and impacting the quality of work.

Companies can improve worker safety and health and protect themselves by understanding the ergonomic risks associated with work-from-home (WFH) scenarios, and by leveraging reliable resources and proven strategies to eliminate the sources of injury. From there, employers can recommend corrective actions to provide safe and healthy work spaces for remote workers.

Understanding the Risks & Costs

Before the pandemic, injuries related to ergonomics accounted for 6.7% of disabling injuries in the U.S., ranking sixth on the list of top causes of workers' compensation claims (Fuge, 2002). According to OSHA (n.d.-b), WMSDs have been among the most frequently reported causes of lost or restricted work time.

As WFH scenarios increase workers' risk for these injuries, OSH managers can show that ergonomic injury prevention is not just a moral obligation, but a financial one as well. They can demonstrate that measures used to prevent injuries come at a savings compared to the direct and indirect costs of the injuries themselves.

Incident rate is a good indicator in determining whether changes are warranted, comparing the incident rate of the organization to the industry rate per 100 workers calculated annually. The incident rate can be calculated as follows:

$$\frac{(\text{New cases per year}) \times (200,000 \text{ work hours}) \text{ per facility}}{\text{Hours worked per facility per year}}$$

Ergonomics Standards & Guidelines

Understanding the legal requirements, recommended standards and guidelines related to the prevention of WMSDs and CTDs is helpful before beginning a work site analysis or taking corrective actions. Reputable organizations such as OSHA and NIOSH provide resources to help

safety managers ensure safe and healthy work environments.

While OSHA no longer has a specific ergonomics standard, it recognizes MSDs and CTDs as potential work-related injuries. In lieu of enforcement, the agency promotes the positive aspects and financial advantages of preventing ergonomic injuries, now providing more than 60 industry-specific guidelines and recommendations that address posture, workstations and work processes (OSHA, n.d.-b). The agency promotes the economic benefits to employers, highlighting increased productivity, lower injury statistics, decreased claims and reduced employee turnover. It also provides case studies of companies that enacted ergonomics programs that helped prevent worker injuries and made positive financial impacts.

Another helpful resource is NIOSH's (2018) *A Primer Based on Workplace Evaluations of Musculoskeletal Disorders*, which describes the elements necessary to prevent WMSDs and CTDs. It offers tips for securing management commitment and outlines procedures for identifying and controlling risk factors.

Analyzing Remote Workstations

Once safety managers understand related recommendations and guidelines, a hazard analysis can evaluate at-home workstations to determine whether they encourage bad work habits. The analysis should include information gathering and conducting a baseline assessment to identify areas that require closer examination. In its ergonomic program recommendations, OSHA (n.d.-a) provides an easy to understand ergonomic checklist to perform an ergonomic hazard assessment and to help create a safe, comfortable workstation.

OSH managers can also leverage employee surveys to help determine which job functions place workers at the greatest risk for injury, and examine incident reports, workers' compensation loss runs, and employee complaints for insight into what injuries and injury threats to include in the analysis.

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Another key component is an observational assessment in which employees are assessed while working. This enables OSH managers to gather data related to rotation schedule, number and frequency of rest breaks, exposure time, pain or discomfort, identification of difficult tasks, tools or equipment that are hard to work with and more. The assessment also examines risk factors such as stretching, twisting, bending, static loads, difficult postures, height of work, reach distances, carrying distances, seat heights and wasted movement.

Once compiled, data can be analyzed and corrective actions recommended. These may include posture and positioning; stretching exercises; standing and walking periodically; and performing certain tasks while standing. OSH managers should also address prevention with regard to workstations where hazards can be eliminated through equipment (e.g., chairs, headrests, keyboards, desks) or work process design.

Conclusion

Many companies were unprepared for the WFH scenarios created by the pandemic, leaving office workers scrambling to set up at-home workstations. While it is unclear how long employees will continue to work from home, their employers are responsible for ensuring that they have safe and healthy work environments. Checklists and best practices can help facilitate proper ergonomic hazard assessments to identify, eliminate and control hazards in WFH environments. Leveraging them will help companies better protect employees and their businesses. **PSJ**

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