

ERGONOMICS IN THE WORKPLACE

By Beth S. Blackmon, MSPH



Over the past decade, changes in regulations pertaining to ergonomics have been implemented, but there are still a broad range of requirements that can be both challenging and confusing for businesses to meet. For example, in March 2001, President George W. Bush signed Senate Joint Resolution 6, which rescinded the original Ergonomic Rule passed under the Clinton administration and prohibited the Occupational Safety and Health Administration (OSHA) from issuing a new rule similar to the former one. Then, in April 2002, OSHA unveiled a four-pronged approach to addressing ergonomic issues that consisted of guidelines, enforcement, outreach and assistance, and research. OSHA also developed specific guidelines for the nursing

home industry, retail grocery store industry, poultry processing industry, and shipyards, but not for other industry classifications.

Employers should be aware, however, that all employers are subject to OSHA's General Duty Clause, Section 5 (a)(1), which states that an employer must keep the workplace free of recognized hazards, including those of an ergonomic nature. This leaves considerable ambiguity as to what constitutes an ergonomic hazard, and what is an appropriate response to such hazards that could or do exist.

While specific guidelines do not have direct applicability to other industries, the information contained in those guidelines can be extrapolated to other applications and provide helpful hints as to what, in general, constitutes a recognized or potential ergonomic hazard, and what are the generally accepted Best Management Practices (BMPs) for mitigating such hazards. This article provides an introduction to some of the types of ergonomic hazards that can be found in workplaces, and some common mitigation methods.

The objective of ergonomics design is to create a work environment that recognizes and accommodates a variety of human capabilities and limitations in a manner that reduces the potential for musculoskeletal disorders (MSDs). Most people agree that removing an identified ergonomic hazard from the workplace would be ideal, but it is not always technically or economically feasible to do so. Instead, administrative controls (e.g., training or job rotation) are often necessary to reduce the likelihood of ergonomic-related injuries.

The scope of ergonomics is very broad. Common ergonomic injuries include carpal tunnel syndrome and related maladies of the wrist and hand. These can include tendonitis, trigger finger, hand/arm vibration disease, deQuervain's disease, and myalgia. These illnesses, known as cumulative trauma disorders (CTDs), are a family of muscle, tendon, and nerve disorders that are accelerated or aggravated by repetitive motion. Administrative actions can be taken to help alleviate the cause of these disorders. Some of the more common CTDs encountered in the workplace and suggestions to help reduce the potential for CTD injuries are listed below.

For repeated actions and sustained postures:

- Provide mechanical aids (e.g., arm and wrist rests) to employees that do repetitive computer work
- Incorporate task rotation
- Modify the work load required of the individual in a particular time frame

For work requiring lifting, carrying, hoisting, pushing, and related activities:

- Provide gloves to the employees that improve their grip on the object
- Reduce the working load, reducing stress to various body parts
- Incorporate rollers and powered belt conveyers to move material
- Utilize handles to make it easier to grip items

For prolonged contact stresses from tools and equipment:

- Use elongated handles on tools, such as scissors and pliers
- Utilize rounded edges on handles and work benches

- Utilize proper tools for impact or striking activities
- Avoid tasks that require the individual to lean on wrists, elbows, or the abdomen
- Provide cushioned tool grips

For posture of the employee:

- Ensure that the workstation, tool design, and tool shape are such that it will allow the employee's body to maintain an unstrained and comfortable position

For cold conditions:

- Provide insulated gloves, making certain that they are not so bulky as to cause additional hazards to the employee
- Utilize insulated or non-conducting handles and grips
- Provide hats and additional clothing on the upper body to retain heat

This article mentions only a small portion of ergonomic hazards encountered in the workplace. To properly identify and mitigate existing and potential ergonomic hazards in the workplace it is recommended that employers consult with experts specializing in ergonomics. Changes required to mitigate identified hazards are often simple and inexpensive, and can in many cases also improve employee morale and productivity.

If you have any questions or concerns regarding ergonomic issues, please contact the Tampa office of Chastain Skillman, Inc.

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