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# Establishing An Ergonomically Correct Call Center

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## **Q: Why is having an ergonomically correct call center important?**

A: Ergonomics matches the task, tool and environment to fit the needs of people and the work they do. Call center workers usually need to sit for extended periods of time doing several tasks on the computer and phone. The advent of technology in call centers has brought incredible speed and accuracy to these workers. However, with all its benefits, technology in the call center can also take a toll on workers in the form of physical ailments, such as muscle soreness, lower back pain, eye fatigue and more serious conditions like repetitive strain injuries (e.g., carpal tunnel syndrome).

Creating an ergonomically correct call center can help workers avoid such discomforts and injury. Ergonomics can be used to improve the well-being and productivity of workers by ensuring that workstations and work methods are designed to meet their needs and capabilities.

## **Q: What would an ergonomically correct call center look like?**

A: It may not be so much how the call center itself looks, but rather how the employees in the call center are working. For example, educating employees on the importance of changing positions often, taking breaks from the computer, and exercising the eyes by shifting focus away from the computer screen and looking at distant objects are important strategies for avoiding health problems.

In addition, special tools and methods for using existing equipment and furnishings can create a more ergonomically correct call center. For example, providing seating and worksurfaces that are adjustable so workers

can raise or lower the chair or worksurface depending on the task they are performing can provide a safer work environment. Footrests can help alleviate lower back strain, and wrist and palm rests are helpful for those who spend a great deal of time keyboarding.

## **Q: Can ergonomics have an impact on performance and productivity?**

A: Research shows that job designs that reduce repetitive strain injuries also improve product quality, increase productivity and reduce health care costs.

A lack of concern for ergonomics can have a negative impact on corporate expenses, insurance rates and the bottom line. The American Academy of Orthopedic Surgeons estimates that job-related repetitive strain injuries cost \$27 billion a year in medical treatment and lost income. The Occupational Safety and Health Administrations (OSHA) estimates that by the turn of the century, 50 cents out of every dollar spent in medical costs will go to treating repetitive strain injuries if businesses ignore ergonomic problems.

## **Q: What are the symptoms of poor ergonomics?**

A: In the office workplace, the most frequently cited ailments among computer users include low back pain, eye fatigue and muscle soreness. Carpal tunnel syndrome and wrist tendonitis have also been reported. The risk of acquiring these afflictions is increased when workers are required to perform keyboard-intensive tasks without breaks or alternate work. Call center workers, secretaries, telephone operators, data-entry clerks, airline reservationist and journalists are among the most commonly affected. Over time, repetitive tasks can

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become debilitating, in extreme cases some workers require surgery to restore normal hand function.

**Q: What steps should be taken to make a call center more ergonomically correct?**

A: Stress through prolonged sitting can be resolved to a great extent with an increased awareness of correct posture. There are two basic sitting positions that can promote a healthy posture: the torso may be positioned upright or slightly reclining - always with both feet resting comfortably on the floor or footrest.

No single posture should be maintained over a long period of time, so it is a good idea to change posture during the workday to prevent fatigue. Most important is to maintain the natural curve of the spine and minimize bending of the wrist. It's also beneficial to keep the neck, shoulders and arms relaxed and keep elbows close to the body.

Mini-breaks - as short as 10 seconds - are recommended throughout the day. A mini-break may consist of a stand-up stretch, a few simple hand exercises, shoulder shrugs, neck rotations or similar activities. Research has found that short, frequent breaks are actually more beneficial than longer, more infrequent breaks. The National Institute for Occupational Safety and Health has concluded that frequent rest breaks enhance both productivity and comfort in computer work.

Some other tips for employees include:  
Experiment with the arrangement of your workstation, as it affects your posture and comfort.  
Stretch before and during work.  
Your monitor and keyboard should be aligned directly in front of you.

Keep neck straight or slightly forward. The top of your computer monitor should be no higher than you nose.

**Q: How can employees be educated about ergonomics and encouraged to use the features and functions available to them in their workspace?**

A: Educating employees about ergonomics and encouraging them to use their work tools appropriately can often be done at little or no cost. There are three primary ways to make this happen:  
Provide employees with simple tips on the most ergonomically correct way for them to interact with their work environment. For example, they should be educated about proper sitting postures and the ideal position of hands and wrists.

Modify existing equipment or furniture, or possibly purchase new equipment to provide for better ergonomics.

Train employees on how to use their existing office furniture and equipment. Research has shown benefits when office workers understand the adjustments and features of the tools in their work setting. Training also ensures that investments made in adjustable equipment and furnishings provide a maximum return.

**Q: If ergonomics is so critical to the workplace, why aren't there specific guidelines about how call centers are designed?**

A: OSHA lists ergonomics as a key factor in preventing musculoskeletal injuries at the workplace. These injuries make up a broad classification that includes overuse or incorrect use of a muscle group or joint. OSHA expresses concern over poor design of machines, furniture that does not fit the task and ineffective safety devices - anything that might precipitate an injury. However, OSHA has not yet created formal guidelines.

The American National Standards Institute (ANSI) first published guidelines affecting office furniture used with video display terminals (VDTs) in 1988. Researched and published by the Human Factors and Ergonomics Society, these guidelines set standards for the proper positioning of a worker in relation to computer equipment. The ANSI guidelines - possibly the most widely referenced - address adjustability as it relates to field of vision, seating posture, worksurface, monitor/VDT height and keyboard positioning.

Call centers of any size should take note of the ANSI guidelines and use them in evaluating the ergonomics of the worksetting.

**Q: What role should management play in ensuring that employees have an ergonomically healthy environment?**

A: Ergonomics should be a priority for management because it can potentially help reduce medical and insurance costs and enhance worker productivity.

It is important to educate employees, provide the proper adjustable furnishings and work tools and, when possible, allow employees to use discretion regarding their pace, schedule and work process. Management should also consult employees about what their needs are and what would help them work more safely and comfortably.

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Some organizations employ an ergonomist to assist in evaluating the work environment and finding solution for workers.

**Q: Are there other workplace issues beyond the physical environment that have an effect on employee health?**

A: Stress is both physical and psychological. While we've addressed many of the physical stressors of a call center, we have not addressed the psychological stress that can also impact employees. Excessive psychological stress such as a burdensome workload or a lack of worker discretion can result in anxiety, loss of concentration and irritability.

By properly identifying, and then eliminating or minimizing the source of the stressors, stress itself can be reduced and controlled. Psychologically, a person's outlook and enthusiasm can be brightened and their contribution enhanced.

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Editor's Note: This month's column is addressed by Paul Allie, an ergonomics specialist in the research and development department at Steelcase, Inc.