



THINK SAFETY



Risk Control at UFG Insurance | riskcontrol@unitedfiregroup.com

Office ergonomics

Office ergonomics is the science of designing tasks, tools and workspaces that fit the human body to create a comfortable, safe and efficient work environment, which reduces the risk of injury. It focuses on arranging workstation elements (such as desks, chairs, computers and equipment) and implementing work practices to support the body's natural biomechanics, ultimately improving overall well-being.

The goal of ergonomics is to:

- Fit the environment to the person rather than forcing individuals to adapt to a poorly designed workspace
- Reduce physical strain by optimizing workstation setups and task design
- Enhance safety and productivity through a well-designed workspace

A poorly designed workspace can lead to musculoskeletal disorders (MSDs), which are injuries to muscles, nerves, tendons and ligaments caused by factors such as awkward postures, repetitive motion and overexertion (e.g. lower back pain, neck pain, carpal tunnel syndrome). MSDs are common and costly issues in the workplace. They are among the most frequently reported causes of lost or restricted work time.

Ergonomics risk factors in office settings can create wear and tear on a person's musculoskeletal system, resulting in discomfort, pain, eye strain and conditions like repetitive strain injuries (RSIs) over time. RSIs develop from repetitive movements, poor posture and inadequate ergonomic setups, leading to gradual damage to muscles, nerves and tendons in the neck, shoulders, arms, wrists and hands (e.g. carpal tunnel syndrome, tendinitis and tennis elbow).

Causes of common conditions

Neck and shoulder pain: Caused by improper monitor positioning (too high or too low) or by using a phone handset between the neck and shoulder, forcing awkward postures.

Back pain: Can be caused by inadequate lumbar support, incorrect chair height, slouching or sitting in a fixed position for too long, which can strain the spine.

Wrist and hand problems: Improper keyboard and mouse placement can lead to awkward wrist angles, which increases the risk of conditions like carpal tunnel syndrome and tendonitis.

Eye strain: A common issue that can be caused by extended screen time, improper monitor distance, height, glare, small text size, or unsuitable lighting, which can contribute to dry eyes, blurred vision, headaches and difficulty focusing.

Effects of work practices

Repetitive motion: Performing the same movements repeatedly can stress muscles and nerves, leading to inflammation and injury.

Prolonged static postures: Holding a single position for an extended period reduces blood flow, can cause muscle fatigue and increase the risk of MSDs.

Lack of breaks: Muscles and joints remain under constant stress without regular movement and stretching, preventing recovery and increasing injury risk.

Environmental: Poor lighting (too bright or too dim) can cause eye strain or an increase of awkward posture to avoid glare; excessive noise can increase stress and reduce focus; uncomfortable temperatures cause distraction and discomfort.



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Focus areas that can help prevent/mitigate injury, stress and strain on the body

Posture: Keeping the body in a natural and neutral position to minimize strain on the muscles (e.g. maintaining a straight spine, relaxed shoulders and neutral wrists).

Adjustability: Using equipment tailored to individual body sizes and preferences (e.g. adjustable chairs, monitors).

Task design: Considering the movements and postures involved in tasks to reduce the likelihood of injuries from repetitive motions.

Movement: Encouraging employees to move regularly to prevent static postures that can cause muscle fatigue.

Environmental factors: Addressing inadequate lighting, excessive noise and extreme temperatures to reduce physical and cognitive strain.

Examples of effective ways to mitigate ergonomic risks

- Adjust the workstation to fit the user (e.g. set the monitor at eye level, ensure forearms are parallel to the floor, use a chair with lumbar support)
- Provide training and educate employees on the value and benefits of posture, proper equipment usage and regular breaks
- Provide adjustable furniture, wrist rests, standing desks or other helpful ergonomic accessories
- Encourage body movement such as standing, stretching or walking breaks
- Conduct regular reviews and reassess workstations, encourage employee feedback on ergonomic concerns and perform workstation assessments with ergonomic specialists or trained human resources representatives

Potential benefits of effective office ergonomics

- Reduced exposures decrease injury frequency and severity
- Improved productivity and less absenteeism
- Enhanced employee or worker well-being
- Cost savings/return on investment
- Employees will feel more rested and better able to enjoy their personal time
- It protects against long-term fatigue and physical burnout, leading to a longer, more productive working life and more enjoyable retirement

Reach out to UFG Risk Control at riskcontrol@unitedfiregroup.com for assistance with an ergonomic assessment or recommendations to mitigate MSD risk. We offer additional informational resources for workstation ergonomics and industrial ergonomics.

Additional resources

- OSHA Ergonomics Guidelines: <https://www.osha.gov/ergonomics>
- Humanscale: <https://www.humanscale.com>
- NIOSH: <https://www.cdc.gov/niosh/topics/ergonomics/>

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