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**ERGONOMIC GUIDELINES****Table of Contents**

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**ERGONOMIC GUIDELINES**

## 1.0 Introduction

### 1.1 Purpose

The purpose of this guideline is to apply ergonomic principles in an effort to reduce the number and severity of musculoskeletal disorders (MSDs) and injuries caused by exposure to risk factors in the workplace. Effective application of ergonomic principles will help to increase worker productivity, quality, and efficiency. An ergonomically sound work environment maximizes employee comfort while minimizing the risk of undue physical stress. Emory University's approach includes making changes where risks have been identified, as well as examining other areas to continuously improve work practices and equipment which could potentially pose a risk.

### 1.2 Scope

This guideline is intended for Emory employees, including faculty, staff, and student employees, who through their work activities are exposed to risk factors that could result in the development of a MSD or injury.

### 1.3 Responsibilities

#### *Employees*

It is recommended that all employees at risk of experiencing a MSD comply with the recommendations set forth by this guideline. Employees should utilize ergonomic work practices, such as proper body mechanics and safe lifting techniques, while performing their job functions. In order to accomplish this, it is recommended that employees:

- Effectively employ engineering controls and comply with all established work practices, requirements, and administrative procedures;
- Implement recommended behavioral changes and improvements to workstations or job tasks;
- Notify the supervisor, Environmental Health and Safety Office (EHSO), and Occupational Injury Management (OIM) of any signs or symptoms of MSDs;
- Complete a People Soft incident report and seek medical treatment with OIM as soon as possible after work-related pain or discomfort occurs;
- Complete Ergonomics Awareness Training upon initial assignment and refresher training every two years thereafter.

### 1.4 Training Requirements

It is recommended that Ergonomics Awareness Training be conducted at the time of initial assignment and every two years thereafter or whenever a new ergonomic hazard is introduced into the work area, whichever is sooner. Ergonomics Awareness Training includes the following:

- An overview of ergonomics and the concept of neutral postures, body mechanics, and safe lifting;
- Signs and symptoms of MSDs;
- Risk factors for ergonomic injuries;
- Job tasks that have been associated with injuries and the development of MSDs;
- The importance of immediately reporting symptoms and injuries; and
- Methods used to help minimize MSDs.

For classroom training, EHSO will maintain documentation of attendance, including the employee's name, department, signature, and date of training. For online training, a record

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of employees' names and dates of completion will be kept on ELMS.

### **1.5 Recordkeeping Requirements**

Training records are retained by EHSO or on ELMS until replaced with a more recent record.

## **2.0 Ergonomic Evaluations**

### **2.1 Ergonomic Discomfort Survey**

The ergonomics discomfort survey is used to help the employee and the EHSO ergonomic assessor identify specific areas of discomfort, severity, duration, and possible causes. The ergonomics discomfort survey allows the EHSO ergonomics assessor to compile information prior to the ergonomics assessment.

An ergonomics discomfort survey may be sent via email to any individual needing or requesting to be assessed for ergonomic hazards related to their job tasks or workstation. Prior to the ergonomics assessment, the discomfort survey should be emailed to [indhvg@emory.edu](mailto:indhvg@emory.edu) by the individual requesting the ergonomics assessment or their supervisor.

### **2.2 Ergonomic Assessment**

An ergonomic assessment is an analysis of work tasks and/or the work area configuration to identify procedures or processes, which could lead to an injury or MSD. Ergonomic assessments are conducted when any of the following occur:

- EHSO receives an incident report indicating that an employee is experiencing symptoms associated with an MSD;
- EHSO receives an incident report indicating that an employee has experienced an injury resulting from exposure to ergonomic risk factors;
- There is an increasing rate of injuries associated with a certain work area, department, or job task;
- A safety walk through, scheduled inspection, or survey uncovers potential ergonomic hazards; or
- A workstation/worksite evaluation is requested by an employee or their supervisor due to employee complaints.
- A workstation/worksite evaluation is recommended as the result of an accident investigation.

Ergonomic risk factors included in the evaluation process include, but are not limited to:

- Physical risk factors including force, posture (awkward and static), static loading and sustained exertion, fatigue, repetition, contact stress, extreme temperatures, and vibration.
- Administrative risk factors including lack of job rotation, insufficient staffing, excessive overtime, inadequate or absence of rest breaks, high pressure or high stress demands, lack of training, work pace, work methods, and psychosocial issues.
- Environmental risk factors including noise, lighting, glare, air quality, temperature, humidity, personal protective equipment and clothing.
- A combination of risk factors such as, but not limited to, highly repetitive, forceful work with no job rotation or precision work done in a dimly lit room.

Various methods will be used to conduct the ergonomics assessments. The type of assessment depends on the task or space being examined. The following steps will be utilized for ergonomic assessments:

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- Walk-throughs and observations;
- Employee interviews;
- Surveys and questionnaires (i.e. the Discomfort Survey);
- Ergonomic checklists to identify risk factors from work tasks; and
- Detailed worksite evaluations, including photographed or videotaped assessments.

**2.3 Follow-Up Assessment**

In order to ensure that concerns have been addressed and that new problems have not been created, additional monitoring and evaluation may be needed. Follow-up methods include use of individual interviews and checklists to reevaluate a previously assessed task or workstation to ensure that risks have been reduced, minimized, or eliminated.

**3.0 Control of Ergonomic Risk Factors****3.1 Engineering Controls**

Engineering controls are the most desirable and reliable means to reduce workplace ergonomic hazards. This is achieved by focusing on the physical modifications of jobs, workstations, tools, equipment, or processes.

**3.2 Administrative Controls**

Administrative controls reduce or prevent workplace exposure to ergonomic hazards by implementing administrative changes such as job rotation, job enlargement, rest/recovery breaks, work pace adjustment, redesign of methods, and worker education.

**3.3 Personal Protective Equipment (PPE)**

Personal Protective Equipment does not take the place of administrative or engineering controls and should always be used as a last resort. However, there are acceptable forms of PPE which can be used to help eliminate ergonomic hazards, such as kneepads and anti-vibration gloves.

**4.0 Guideline Evaluation**

The written Ergonomics Guideline is re-evaluated annually to assess its progress and effectiveness. The evaluation considers the following:

- Training and training records;
- The jobs, processes, or operations that have produced a high incidence rate of MSDs;
- The length of time between a request for an ergonomic assessment and the actual evaluation; and
- The length of time between the point at which the results of the evaluation are communicated and when implementation of controls begins.

Overall success of these guidelines will be based upon a comparison of indicators from previous years using the following criteria after a baseline has been established:

- The number and type of lost workdays associated with OSHA recordable cases.
- The cost of workers' compensation cases.
- Employee feedback through online surveys distributed to employees for whom we have performed an ergonomic assessment.

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**ERGONOMIC GUIDELINES****5.0 References**

- [United States Occupational Safety & Health Administration \(OSHA\) Ergonomics Page](#)
- [OSHA General Duty Clause](#)
- [State Compensation Insurance Fund Ergonomics Resources](#)
- [The National Institute of Occupational Safety and Health Elements of Ergonomics Programs](#)
- [University of Southern California \(USC\) Ergonomics Program](#)
- [State of California Ergonomics Program](#)
- OTI 2250: Principles of Ergonomics Applied to Musculoskeletal and Nerve Disorders-Georgia Tech Research Institute