

Beaumont

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Area Laboratory-Safety
Applicability All Beaumont Hospitals

Laboratory Ergonomics

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

- A. Ergonomics is the study of how people interact physically with their work environment to perform required tasks.
- B. The goal of ergonomics is to reduce stress and eliminate injuries and disorders associated with the overuse of muscles, improper posture, and repeated tasks. This is accomplished by designing tasks, workstations, controls, displays, tools, lighting, and equipment to fit the employee's physical capabilities and limitations.
- C. The laboratory will evaluate employees and workstations through prevention and engineering controls.
- D. This procedure is to identify for training purposes common postures and motions to avoid, identify work area considerations when performing an ergonomic assessment, and outline a procedure to follow in the event of an ergonomic concern.

II. PROCEDURE:

Managers should proactively use the Laboratory Ergonomic Assessment form in the attachment section of this policy to collaborate with staff on workstation arrangement and function with regard to ergonomic objectives. Consideration will be given to the following concerns and further evaluation sought when a problem is identified:

- A. **Training**
Training will include instruction on proper body positions and use of any devices designed to reduce strain. Specific considerations include the following:
 - 1. Postures to avoid:

- a. Prolonged or repetitive flexion or extension of the wrist
 - b. Prolonged or repetitive bending at the waist
 - c. Prolonged standing or sitting without shifting position
 - d. Suspending an outstretched arm for extended periods of time
 - e. Holding or turning the head consistently to one side or working with head bent forward
 - f. Any unnatural posture that is held repeatedly or for a prolonged time
2. Motions to avoid:
- a. Repeated motion without periods of rest
 - b. Repeated motion with little or no variation
 - c. Repeated motions done with great force
 - d. Resting or compressing a body part on or against a surface
 - e. Lifting heavy objects far away from the body
 - f. Frequent reaching or working above shoulder height
 - g. Holding fingers, hands and arms in unnatural positions
 - h. Using heavy touch on computer or equipment keyboards or touch pads
 - i. Squeezing bottles or other objects with large amount of force, and or repeatedly without periods of rest
3. Factors which may contribute to symptoms:
- a. Furniture or a workstation arrangement which produces bad postures
 - b. Physically demanding work the employee is not accustomed to
 - c. Underlying medical conditions

B. Workstation Considerations

The workstation will be large enough to accommodate the employee, allow the full range of motions involved in performing the task(s) and provide adequate room for the equipment and materials that make up the workstation. Employee will arrange equipment and supplies so that reaching is kept to a minimum. All of the following will be considered when doing a workstation/function assessment.

1. Desk/computer/lab workstations:
 - a. Chair adjustments
 - b. Design/layout
 - c. Equipment
 - d. Anti-fatigue mats
 - e. Keyboard
 - f. Lighting
 - g. Monitor

- h. Mouse or other input device
 - i. Work habits
- 2. Work functions (examples):
 - a. Repetitive pipetting
 - b. Microscopy
 - c. Workbenches
 - d. Biosafety cabinet
 - e. Micro-manipulation and fine motor skill activities
 - f. Microtome and cryostat work
 - g. Interacting with equipment
 - h. Overhead lifting

C. Action

1. Employee

- a. To minimize possibility of Musculoskeletal Disorder (MSD), employee will be responsible to:
 - i. Maintain workstation, equipment and supplies to minimize MSD.
 - ii. Avoid unnatural postures and positions, repetition and/or unusual force application.
- b. Upon concern of potential workstation or work practice that may possibly be contributing to a MSD, the employee is responsible to report any symptoms and/or concerns to their manager/supervisor.

2. Management

- a. Upon receiving an ergonomics concern, the manager/supervisor will investigate and evaluate the situation. The National Institute for Occupational Safety and Health (NIOSH)/Centers for Disease Control and Prevention (CDC) and Occupational Safety and Health Administration (OSHA) websites in the reference section can be accessed for detail information on ergonomics.
- b. Where reasonably feasible, the manager/supervisor will:
 - i. Evaluate the employee's work environment
 - a. Use the Laboratory Ergonomic Assessment form in the policy attachment section to determine what improvements can be implemented.
 - b. The OSHA Computer Workstation checklist [OSHA Computer Workstation checklist](#) can be used as a guide to help assess the work environment.
 - c. Change and/or modify employee's work actions, motions and activities

- d. Change and/or modify the workstation and/or work practice

III. REFERENCES:

- A. [NIOSH/CDC](#)
- B. [OSHA Ergonomics Prevention](#)
- C. [OSHA e-tools on Ergonomics](#)
- D. [OSHA Computer Workstation Ergonomics](#)
- E. [OSHA Computer Workstation checklist](#)
- F. College of American Pathologists (CAP) Laboratory General Checklist GEN.77200 Ergonomics

Attachments

[Laboratory Ergonomics Assessment Checklist](#)

Approval Signatures



Step Description	Approver	Date
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Applicability

Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Taylor, Trenton, Troy, Wayne