



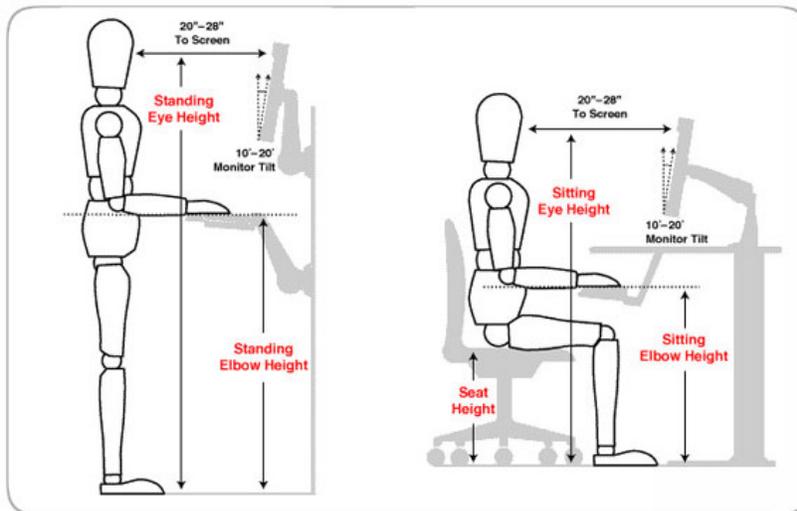
Board Policy 6818 Ergonomics Program

The ergonomics program is designed to enhance the health and safety of all employees who may be exposed to ergonomic hazards in the course of their employment with the West Hills Community College District and to reduce liability and exposure and the frequency and severity of ergonomic hazards, injuries, and accidents.

Board approved: 9/28/10

ERGONOMICS PROGRAM

Awareness and Training



Working Positions



Tools



Micro Stretch

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ERGONOMICS PROGRAM

Background

Ergonomics is the study of the problems people have in adjusting to their environment. Since it involves a work area, it can mean the difference in personal comfort or discomfort not only now but for the rest of one's life. Ergonomic disorders account for the largest percentage and the most costly job-related illnesses.

In August 1990 the Occupational Safety and Health Administration (OSHA) began a nationwide program to help reduce or eliminate worker exposure to ergonomic hazards that lead to cumulative trauma disorder (CTD), repetitive motion injury (RMI), and other work-related musculoskeletal disorders (WMSD) such as inflamed joints or sprains/strains. OSHA Title 8 CCR, Section 5110 was enacted to minimize workplace RMIs. Every employer is subject to this section and is required to establish and implement a program designed to minimize RMIs.

Program

The ergonomic program is designed to enhance the health and safety of all employees who may be exposed to ergonomic hazards in the course of their employment with the West Hills Community College District and to reduce liability and exposure and the frequency and severity of ergonomic hazards, injuries, and accidents. The program applies to all. This document explains the policy and procedures with respect to ergonomic issues. Per OSHA recommendations and requirements, the Ergonomics Program includes information on medical management, hazard prevention and control, workstation analysis, and training and education. The district reserves the right to amend the Ergonomics Program. Amendments will be communicated to affected staff. This program will become effective immediately and is part of the districts Injury and Illness Prevention Program (see Board Policy 7343, Injury and Illness Prevention Program).

Medical Management

The District encourages early reporting of ergonomic related issues, since early identification, evaluation, and treatment are essential in eliminating or reducing the risks of work-related musculoskeletal disorders (WMSD), cumulative trauma disorders (CTD), and repetitive motion injuries (RMI). Employees reporting symptoms or signs of potential WMSDs, CTDs or RMIs will have their complaints addressed in a timely and appropriate manner by the human resources department.

If the complaint is due to an overt injury such as significant overexertion, fall, or struck against an object, the employee will have an opportunity for prompt evaluation by a health care provider and treatment rendered accordingly. A workers compensation claim will be submitted when appropriate. In addition, the supervisor will initiate procedures to evaluate the employee's health compliant, job practices, and worksite (see "Workstation Evaluation" below) if:

- 1) an employee complains of an ache or pain that, in the best assessment of a manager or supervisor, is potentially a situation involving an ergonomic hazard; or
- 2) an employee is diagnosed with an RMI by a licensed physician.

The Director of Human Resources is then responsible for:

- 1) completing a systematic evaluation of the worksite and job duties;
- 2) if necessary, making appropriate referral to ergonomic professionals; and
- 3) maintaining appropriate records of complaints, control measures, and corrections.

Hazard Prevention & Control

The District will work with employees to eliminate or materially reduce identified MSD, CTD, and RMI hazards. Control measures might include engineering controls, administrative controls, and/or work practice controls (see examples below). The district may require the use of Personal Protective Equipment (PPE) to supplement the other control measures.

- Engineering Controls – workstation redesign, adjustable fixtures, or tool redesign
- Work Practice Controls – training in proper work technique(s), adjustments, and modifications
- Administrative Controls – Job rotation, work pacing, or work breaks to minimize injuries

The employee is responsible to minimize his/her own exposure by considering his/her own work habits and work area organization. See the following appendices A-F, for additional guidelines to minimizing specific ergonomic hazards:

- A. General Workstation Principles
- B. Principles for Repetitive Hand and Wrist Tasks
- C. Use and Selection Principles
- D. Principles for Lifting and Lowering Tasks
- E. Principles for Pushing and Pulling Tasks
- F. Principles for Carrying Tasks

Workstation Evaluation

Requests for worksite evaluations at the West Hills Community College District may be initiated either by a physician, a supervisor, or an employee. Workstation assessment may be necessary as a result of any of the following circumstances:

1. Report of ergonomic injury or concern from employee
2. Development of a new job, process, or operation by a supervisor or the district
3. Complaints from employees in new jobs, processes, or operations
4. Complains from employees utilizing new tools or machinery
5. Known areas within the college or district with a history of or with increased employee complaints of any type

The employee shall notify their immediate supervisor or manager of any concerns regarding the employee's workstation and/or interaction with his/her workstation. Depending on the nature of the complaint or request, the immediate manager or supervisor may either address the issue individually or refer the complaint to the human resources department for action. Regardless of the immediate manager or supervisor's response, action to address the employee's concern will occur.

When referral to the human resources department is necessary, the following procedures will be followed to address the complaint:

1. The supervisor will submit a request for workstation evaluation to the human resources department.
2. The human resources department will review the work site, complete the Workstation Evaluation Form (Appendix G), perform a job analysis, and suggest improvement. When appropriate, the human resources department will make a referral to a consultant for the evaluation, analysis and recommendation
3. A copy of the Workstation Evaluation Form will be provided to the immediate manager or supervisor.
4. The immediate manager or supervisor shall consider the various alternative controls available and initiate reasonable follow up action as necessary to address the complaint in a reasonable timeframe.
5. The employee shall report to the supervisor if:
 - a. An employee has sustained an injury or has an accident at work; or
 - b. A WMSD, CTD or RMI condition does not improve and /or persists in spite of efforts taken to correct or minimize identified hazards at the workstation and/or job process.
6. Should the employee require medical treatment, the district will provide requested information to the health care professional about the job, the WMSD hazards, and the ergonomics standard.

Management Leadership and Employee Participation

The Ergonomic Program Administrator has the ultimate responsibility for ergonomic issues within the institution and will provide those individuals designated responsible for implementing the ergonomic program with the authority, resources, information, and training necessary for handling of those duties. The Ergonomic Program Administrator for the West Hills Community College District is the Vice Chancellor Business Services.

Responsibilities of Ergonomic Program Administrator

1. Implementation of the ergonomic program.
2. Ensure that each covered employee receives a copy of the district's written program concerning ergonomics and signs a statement certifying receipt of these materials.
3. Ensure that existing policies and practices encourage and do not discourage reporting and participation in the ergonomics program.
4. Periodic review to ensure the program's effectiveness.

Responsibilities of Dean, Associate Dean, or Department Head

1. Administer the program in the department or work area.
2. Provide training about the ergonomic program in the department or work area and supply resources for control measures.
3. These responsibilities allow either personal action by the unit manager or delegating the action to subordinates with supervisory responsibilities.

Responsibilities of Supervisors or Managers

1. Enforcement of the ergonomic program.
2. Carry out safety actions directed by respective unit managers.
3. Conduct ergonomic training and forward copies of safety training records to the human resources department.
4. Encourage use of personal protection equipment (PPE) and safe ergonomic practices.
5. Investigate and promptly report all ergonomic complaints.
6. Request ergonomic review when needed from the human resources department.
7. Initiate whatever follow up action is necessary to address the complaint in a reasonable timeframe.

Responsibilities of Employee

1. Confirm receipt of the district's written ergonomic program by signing a statement certifying he/she has received a copy of these materials.
2. Participate in safety and health training as requested and required.
3. Work in a safe manner following district safety rules, warning signs, and specific instructions of the unit manager and/or supervisor.
4. Promptly notify his/her supervisor to report discomfort and/or problems associated with his/her workplace.

Responsibilities of Human Resources Department

1. Periodic staff in-service training using the services of safety professionals, consultants, or other competent resources.
2. Communicate periodically with employees about the program and their concerns about WMSDs, CTDs and RMIs.
3. Complete ergonomic review including workstation evaluation assessments, job analysis, and recommendations for control measures, or make referral to consultant. Follow up to determine effectiveness of the control measures.

Training and Education

The district will make available an information and training program to all affected employees. The goal of the program is to ensure all personnel are adequately informed about ergonomic risk factors, WMSD, CTD, and RMI hazards, and are knowledgeable in what to do if an injury occurs. For ergonomics, the overall goal of training is to enable managers, supervisors, and employees to identify aspects of job tasks that may increase the risk of developing WMSDs, CTDs, and RMIs, recognize the signs and symptoms of the disorders, and participate in the development of strategies to control or prevent them. Training employees ensures that they are well informed about the hazards so they can actively participate in identifying and controlling exposures.

JOB CATEGORIES AND REQUIRED TRAINING

All Employees	<ul style="list-style-type: none">• Basic ergonomic awareness training
Every Employee in Suspect Problem Jobs	<ul style="list-style-type: none">• Basic ergonomic awareness training• Job specific training

All Managers and Supervisors	<ul style="list-style-type: none"> • Basic ergonomic awareness training • Job specific training, if appropriate • How and when to utilize the Workstation Evaluation Form
Human Resources Department Staff	<ul style="list-style-type: none"> • Basic ergonomic awareness training • Job specific training, if appropriate • How and when to utilize the Workstation Evaluation Form • Training in job analysis and control measures • Evaluation of the effectiveness of the ergonomics program and controls

The district will take appropriate action to provide initial employee training and information at the inception of the ergonomic program or at the time of an employee's initial assignment to a problem job area. Employees will also receive appropriate training prior to assignments involving new exposure situations. The district understands that training should be a regular, continuing activity; therefore, refresher training will be provided at periodic, regular intervals. The basic rules will be to provide refresher training every three years. The frequency may be adjusted up or down depending on the needs and assessments done by the human resources department.

Tips for Controls
General Workstation Design Principles

1. Make the workstation adjustable, enabling both large and small persons to fit comfortably and reach materials easily.
2. Locate all materials and tools in front of the worker to reduce twisting motions. Provide sufficient work space for the whole body to turn.
3. Avoid static loads, fixed work postures, and job requirements in which operators must frequently or for long periods:
 - a. lean to the front or to the side;
 - b. hold a limb in a bent or extended position;
 - c. tilt the head forward more than 15 degrees; or
 - d. support the body's weight with one leg.
4. Set the work surface above elbow height for tasks involving fine visual details and below elbow height for tasks requiring downward forces and heavy physical effort.
5. Provide adjustable, properly designed chairs with the following features:
 - a. adjustable seat height
 - b. adjustable up and down back rest, including a lumbar (lower-back) support
 - c. padding that will not compress more than an inch under the weight of a seated individual
 - d. a chair that is stable to the floor at all times (5-leg base)
6. Allow the workers, at their discretion, to alternate between sitting and standing. Provide floor mats or padded surfaces for prolonged standing.
7. Support the limbs: provide elbow, wrist, arm, foot, and back rests as needed and feasible.
8. Use gravity to move materials.
9. Design the workstation so that arm movements are continuous and curved. Avoid straight-line, jerking arm motions.
10. Design so arm movements pivot about the elbow rather than around the shoulder to avoid stress on shoulder, neck, and upper back.
11. Design the primary work area so that arm movements or extensions of more than 15 inches are minimized.
12. Provide dials and displays that are simple, logical, and easy to read, reach, and operate.
13. Eliminate or minimize the effects of undesirable environmental conditions such as excessive noise, heat, humidity, cold, and poor illumination.

Tips for Controls
Design Principles for Repetitive Hand and Wrist Tasks

1. Reduce the number of repetitions per shift, where possible, substitute full or semi-automated systems.
2. Maintain neutral (handshake) wrist position:
 - a. Design jobs and select tools to reduce extreme flexion or deviation of the wrist.
 - b. Avoid inward and outward rotation of the forearm when the wrist is bent to minimize elbow disorders (i.e., tennis elbow).
3. Reduce the force or pressure on the wrists and hands:
 - a. Wherever possible, reduce the weight and size of objects that must be handled repeatedly.
 - b. Avoid tools that create pressure on the base of the palm which can obstruct blood flow and nerve function.
 - c. Avoid repeated pounding with the base of the palm.
 - d. Avoid repetitive, forceful pressing with the finger tips.
4. Design tasks so that a power rather than a finger pinch grip can be used to grasp materials. Note that a pinch grip is five times more stressful than a power grip.
5. Avoid reaching more than 15 inches in front of the body for materials:
 - a. Avoid reaching above shoulder height, below waist level, or behind the body to minimize shoulder disorders.
 - b. Avoid repetitive work that requires full arm extension (i.e., the elbow held straight and the arm extended).
6. Provide support devices where awkward body postures (elevated hands or elbows and extended arms) must be maintained. Use fixtures to relieve stressful hand/arm positions.
7. Select power tools and equipment with features designed to control or limit vibration transmissions to the hands, or alternatively design work methods to reduce time or need to hold vibrating tools.
8. Provide for protection of the hands if working in a cold environment. Furnish a selection of glove sizes and sensitize users to problems of forceful over gripping when worn.
9. Select and use properly designed hand tools (e.g., grip size of tool handles should accommodate majority of workers).

Tips for Controls Handtool Use and Selection Principles

1. Maintain straight wrists. Avoid bending or rotating the wrists. Remember to bend the tool, not the wrist. A variety of bent-handle tools are commercially available.
2. Avoid static muscle loading. Reduce both the weight and size of the tool. Do not raise or extend elbows when working with heavy tools. Provide counter-balanced support services for larger, heavier tools.
3. Avoid stress on soft tissues. Stress concentrations result from poorly designed tools that exert pressure on the palms or fingers. Examples include short-handled pliers and tools with finger grooves that do not fit the worker's hand.
4. Reduce grip force requirements. The greater the efforts to maintain control of a hand tool, the higher the potential for injury. A compressible gripping surface rather than hard plastic may alleviate this problem.
5. Whenever possible, select tools that use a full-hand power grip rather than a precision finger grip.
6. Maintain optimal grip span. Optimum grip spans for pliers, scissors, or tongs, measured from the fingers to the base of the thumb, range from 6 to 9 cm. The recommended handle diameters for circular handle tools such as screwdrivers are 3 to 5 cm when a power grip is required and 0.75 to 1.5 cm when a precision finger grip is needed.
7. Avoid sharp edges and pinch points. Select tools that will not cut or pinch the hands even when gloves are not worn.
8. Avoid repetitive trigger-finger actions. Select tools with large switches that can be operated with all four fingers. Proximity switches are the most desirable triggering mechanism.
9. Isolate hands from heat, cold, and vibration. Heat and cold can cause loss of manual dexterity and increased grip strength requirements. Excessive vibration can cause reduced blood circulation in the hands causing a painful condition known as white-finger syndrome.
10. Wear gloves that fit. Gloves reduce both strength and dexterity. Tight-fitting gloves can put pressure on the hands, while loose-fitting gloves reduce grip strength and pose other safety hazards (e.g., snagging).

Tips for Controls
Design Principles for Lifting and Lowering Tasks

1. Optimize material flow through the workplace by:
 - a. reducing manual lifting of materials to a minimum
 - b. establishing adequate receiving, storage, and shipping facilities
 - c. maintaining adequate clearances in aisle and access areas

2. Eliminate the need to lift or lower manually by:
 - a. increasing the weight to a point where it must be mechanically handled
 - b. palletizing handling of raw materials and products, and using unit load concept (bulk handling in large bins or containers)

3. Reduce the weight of the object by:
 - a. reducing the weight and capacity of the container
 - b. reducing the load in the container
 - c. limiting the quantity per container to suppliers

4. Reduce the hand distance from the body by:
 - a. changing the shape of the object or container so that it can be held closer to the body
 - b. providing grips or handles for enabling the load to be held closer to the body

5. Convert load lifting, carrying, and lowering movements to a push or pull by providing:
 - a. conveyors
 - b. ball caster tables
 - c. hand trucks, and
 - d. four-wheel carts

Tips for Controls
Design Principles for Pushing and Pulling Tasks

1. Eliminate the need to push or pull by using the following mechanical aids, when applicable:
 - a. conveyors (powered and non-powered)
 - b. powered trucks
 - c. lift tables
 - d. slides or chutes

2. Reduce the force required to push or pull by:
 - a. reducing size and/or weight of load
 - b. using four-wheel trucks or dollies
 - c. using non-powered conveyors
 - d. requiring that wheels and casters on hand-trucks or dollies have:
 - i. periodic lubrication of bearings
 - ii. adequate maintenance
 - iii. proper sizing (provide larger diameter wheels and casters)
 - e. maintaining the floors to eliminate holes and bumps
 - f. requiring surface treatment of floors to reduce friction

3. Reduce the distance of the push or pull by
 - a. moving receiving, storage, production, or shipping areas closer to work production areas
 - b. improving the production process to eliminate unnecessary materials handling steps

4. Optimize the technique of the push or pull by
 - a. providing variable-height handles so that both short and tall employees can maintain an elbow bend of 80 to 100 degrees
 - b. replacing a pull with a push whenever possible
 - c. using ramps with a slope of less than 10%

Tips for Controls
Design Principles for Carrying Tasks

1. Eliminate the need to carry by rearranging the workplace to eliminate unnecessary materials movement and using the following mechanical handling aids, when applicable:
 - a. conveyors (all kinds)
 - b. lift trucks and hand trucks
 - c. tables or slides between workstations
 - d. four-wheel carts or dollies
 - e. air or gravity press ejection systems

2. Reduce the weight that is carried by:
 - a. reducing the weight of the object
 - b. reducing the weight of the container
 - c. reducing the load in the container, and
 - d. reducing the quantity per container to suppliers

3. Reduce the bulk of the materials that are carried by:
 - a. reducing the size or shape of the object or container
 - b. providing handles or hand-grips that allow materials to be held close to the body
 - c. assigning the job to two or more persons

4. Reduce the carrying distance by:
 - a. moving receiving, storage, or shipping areas closer to production areas
 - b. using powered and non-powered conveyors

5. Convert carry to push or pull by:
 - a. using non-powered conveyors
 - b. using hand trucks and push carts

Workstation Evaluation Form

Employee Name: _____ Date: _____

Job/Position: _____

Workstation Evaluated By: _____

Signature: _____

Employee's Concerns: _____

Ergonomic Hazards Checklist

Excessive Force Exertion

- lifting heavy objects*
- lifting/carrying heavy object*
- balance with heavy object*
- pulling to move object*
- pushing to move object*
- twisting to move object*
- power gripping*
- power grip and manipulate*
- pounding to get job done*
- Other factors:* _____

Repetition/Frequency

- finger(s)*
- hand*
- wrist*
- elbow*
- shoulder*
- foot*
- ankle*
- knee*
- hips*
- lower back*
- mid back*
- neck*
- Activities occur every few seconds?* _____
- Cycle of activity occurs in less than one minute?* _____
- Cycles of the activity occur for prolonged periods of time?* _____
- What activities are maintained for at least 6 hours of an 8 hour shift?* _____

Other factors: _____

Awkward Posture

- reaching above the shoulders*
- reaching behind the back*
- twisting of the wrists*
- twisting of the back*
- bending the back forward*
- bending backwards*
- bending to the sides*
- bending the neck forward*
- extension of neck*
- right side bending of the neck*
- rotating neck to the left*
- rotating neck to the right*

getting into small and confined space to accomplish a task: _____
 maintaining a rather awkward posture for the duration of a task: _____
 Other factors: _____

Duration/Inadequate Rest

Sitting: _____ hours Standing: _____ hours Walking: _____ hours
What other occupations maintain the same posture for at least 6 hours of an 8 hour day? _____

Other factors: _____

Contact Stress

on-rounded desk edges mouse pad
 wrist pad unpadded, narrow tool handles
 significant leaning onto objects – body region: _____

Other factors: _____

Vibration

specific part of the body that comes in contact with a vibrating object: _____
 utilize power hand tools: _____
 exposure to whole-body vibration: _____
 standing or sitting in vibrating environments or objects: _____
 operators of heavy-duty vehicles: _____
 operators of large machinery: _____
 Other factors: _____

Other Conditions

temperature weather humidity
 direct glare indirect glare disability glare
 unfamiliar work conditions unaccustomed work
 Other factors: _____

Office Workstation Checklist

Desk

Monitor height at proper eye level: yes no Notes: _____
Distance of monitor to eyes 14" to 30" yes no Notes: _____
Document holder yes no Notes: _____

Ergonomic keyboard __ yes __ no Notes: _____
 Adjustable keyboard tray __ yes __ no Notes: _____
 Padded mouse surface __ yes __ no Notes: _____
 Foot stool __ yes __ no Notes: _____
 Workstation organized __ yes __ no Notes: _____
 Efficient tool placement __ yes __ no Notes: _____
 Workstation organized for task __ yes __ no Notes: _____

Chair

Tilt tension	__ yes __ no	Back angle	__ yes __ no
Seat height	__ yes __ no	Arm height	__ yes __ no
Back height	__ yes __ no	Adjustable	__ yes __ no
Seat back depth	__ yes __ no	Arm angle	__ yes __ no
Knee tilt	__ yes __ no	Seat angle	__ yes __ no
Multi-depth pan	__ yes __ no	Casters	__ yes __ no
Headrest	__ yes __ no	Lumbar support	__ yes __ no

Assessment of Ergonomic Issues

Summarize the TOP 3 ergonomic concerns for each ergonomic hazard:

Forceful Exertion

1. _____
2. _____
3. _____

Repetition/Frequency

1. _____
2. _____
3. _____

Awkward Posture

1. _____
2. _____
3. _____

Duration/Inadequate Rest

1. _____
2. _____
3. _____

Contact Stress

1. _____
2. _____
3. _____

Vibration

1. _____
2. _____
3. _____

Environmental Factors/Other

1. _____
2. _____
3. _____

Office Workstation

1. _____
2. _____
3. _____

Action Plan

Engineering Controls: List any physical modification to the workstation or the process of any work performed.

1. *Workstation Design:* _____

2. *Design of Work Methods:* _____

3. *Other:* _____

Work Practice Controls: List any procedures for proper and safe work.

1. *Proper work technique:* _____

2. *Employee conditioning:* _____

3. *Adjustments and modifications:* _____

4. *Employee feedback:* _____

5. *Monitoring:* _____

6. *Enforcement:* _____

Personal Protective Equipment (PPE): List any items that can be used to help reduce physical stress onto employee.

1. _____

2. _____

3. _____

Administrative Controls: List pertinent administrative changes that would decrease exposure to ergonomic hazards.

1. *Job rotation:* _____

2. *Load/Repetition reduction:* _____

3. *Rest pauses:* _____

4. *Team Work/Standby relief:* _____

5. *Tool maintenance:* _____

6. *General workstation housekeeping:* _____

7. *Other:* _____

NOTES:
