

**National Institutes of Health
Office of Research Services
Division of Occupational Health and Safety**

Ergonomics Program



Technical Assistance Branch

Reviewed June 2011

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ERGONOMICS PROGRAM

CONTENTS

1.0	INTRODUCTION.....	1
1.1	Purpose	1
1.2	Scope.....	1
1.3	Policy	1
2.0	DEFINITIONS	1
3.0	RESPONSIBILITIES	2
4.0	IDENTIFICATION OF ERGONOMIC HAZARDS	2
4.1	NIH Ergonomic Health Web Site.....	2
4.2	Employee Request for Evaluation	3
4.3	Laboratory Safety Surveys	3
4.4	OMS Evaluations	3
4.5	Injury/Illness Reports	3
5.0	EVALUATION AND CONTROL OF ERGONOMIC HAZARDS	3
5.1	Work Area Evaluation.....	3
5.2	Ergonomic Hazard Control	3
6.0	TRAINING.....	3
6.1	Web-based Training.....	4
6.2	Ergonomic Training Classes	4
6.3	Training Videos	4
6.4	One-On-One Training.....	4
7.0	MEDICAL MANAGEMENT	4
8.0	PROGRAM EVALUATION	5

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ERGONOMICS PROGRAM

1.0 INTRODUCTION

1.1 Purpose

The National Institutes of Health's (NIH) established the comprehensive Occupational Safety and Health Program to provide NIH employees with places and conditions of employment in which the risk of exposure to potential hazards is minimized. The NIH Ergonomics Program (NIH EP) is an integral part of the Occupational Safety and Health Program. The NIH EP establishes procedures for ergonomic hazard identification, evaluation and control; training; medical management; program management; and program evaluation. The Program actively works within the NIH to inform employees of potential ergonomic hazards.

1.2 Scope

The Office of Research Services (ORS), [Division of Occupational Health and Safety](#) (DOHS) developed and administers the NIH EP for every employee at NIH at risk for developing a work-related musculoskeletal disorder (WMSD). Therefore, the NIH EP covers all NIH employees.

The NIH EP focuses on employees whose primary work-related tasks require repetitive motions, awkward postures, and forceful exertions. These types of tasks are normally performed by personnel who spend a large part of their day at computer workstations; personnel involved with repetitive or heavy lifting; and personnel involved with pipetting and microscopy, animal care and handling, and patient care and handling.

1.3 Policy

The NIH provides, at no cost to employees, ergonomic evaluations of employees' workstations or work areas; training on ergonomic hazards typically found in their work areas; and medical management for employees who have WMSDs.

2.0 DEFINITIONS

Ergonomics: The science of fitting jobs to people. Ergonomics encompasses the body of knowledge about physical abilities and limitations as well as other human characteristics that are relevant to job design.

Musculoskeletal Disorder (MSD): Any injury or illness related to the musculoskeletal system, which involves the nerves, tendons, muscles, and supporting structures such as the intervertebral disc. Repetitive motions, awkward postures, high repetition, and/or forceful exertions usually cause the injury or illness.

Work-related: The physical work activities or workplace conditions in the job that are reasonably likely to cause or contribute to a MSD. A MSD is work-related if:

- a. Work-related MSD hazards are present in a job where a MSD has been reported;
- b. The hazards are reasonably likely to cause or contribute to the type of MSD reported;
- c. A significant part of the employee's regular job duties involves exposure to these work-related MSD hazards.

3.0 RESPONSIBILITIES

Ergonomics Program Manager (EPM): The EPM develops and administers the NIH EP, coordinates and schedules ergonomic evaluations, coordinates ergonomic training sessions, regularly updates the [NIH ergonomics Web site](#), maintains a database on employees who have completed ergonomic training, and remains abreast of technical issues related to ergonomics. The EPM shall periodically review and evaluate the effectiveness of the NIH EP (Section 8.0: Program Evaluation).

Technical Assistance Branch -Industrial Hygienist (TAB-IH): The TAB-IHs perform ergonomic evaluations and conduct training sessions. The TAB-IHs complete an Office Ergonomic Evaluation Checklist (OEEC) for each evaluation performed for an NIH employee. A copy each evaluation is furnished to the EPM. A list of all employees who participate in an ergonomics training session is furnished to the EPM.

Safety and Occupational Health Specialist (SOHS): The Institute or Center (IC) SOHSs conduct routine walk-through surveys in their areas of responsibility and notify the EPM of any workplace conditions or physical work activities that cause or are reasonably likely to cause or contribute to a WMSD.

Occupational Medical Service - Health Care Practitioner (OMS-HCP): The OMS-HCP provides medical evaluation and treatment procedures. The OMS-HCP evaluates NIH employees who feel they have symptoms indicative of a WMSD; treats NIH employees who have WMSDs; and, if necessary, refers them to the OMS Physical Therapist.

Occupational Medical Service - Physical Therapist (OMS-PT): The OMS-PT provides continuing medical management to NIH employees who have been diagnosed with a WMSD. The OMS-PT also provides consultative services to the Clinical Center for patient care ergonomics.

4.0. IDENTIFICATION OF ERGONOMIC HAZARDS

Many work-related tasks have some degree of risk for developing a musculoskeletal disorder. The NIH EP is designed to help DOHS staff identify work-related tasks that present a moderate to high degree of risk. Ergonomic hazards are identified by the following methods.

4.1 NIH Ergonomic Health Web Site

The NIH Ergonomic Health Web site provides an avenue for NIH employees to perform a self-evaluation of their work area and/or report complaints about musculoskeletal disorder symptoms. The Web site guides

employees through the proper steps for evaluating their workstation setup or job tasks, and for contacting the SOHS to request an ergonomic evaluation or to report a suspected ergonomic hazard. The request, whether via e-mail or phone, is forwarded to the EPM or to a TAB-IH. The Web site is located at: http://dohs.ors.od.nih.gov/ergonomics_home.htm.

4.2 Employee Request for Evaluation

NIH employees call DOHS directly to request an ergonomic evaluation of their work areas. These calls are forwarded to the EPM or TAB-IH.

4.3 Laboratory Safety Surveys

Institute or Center SOHSs periodically conduct laboratory safety surveys in their areas of responsibility and notify the EPM of any workplace conditions or physical work activities that cause or are reasonably likely to cause or contribute to a WMSD.

4.4 OMS Evaluations

The OMS notifies the EPM whenever an OMS-HCP evaluates an NIH employee with a work-related musculoskeletal disorder.

4.5 Injury/Illness Reports

The EPM or a TAB-IH reviews each Injury/Illness Report to determine whether a WMSD has occurred in a work area that has not been evaluated by the DOHS.

5.0 EVALUATION AND CONTROL OF ERGONOMIC HAZARDS

5.1 Work Area Evaluation

The EPM or TAB-IH will conduct an assessment consisting of at least a walkthrough survey and an interview with the employee regarding ergonomic issues related to their job. Once an ergonomic hazard has been identified, the EPM or TAB-IH with the assistance of the SOHS will analyze the job task and make recommendations to improve the ergonomic design of the work area and/or the job task. Work area evaluations may include an employee interview, videotape analysis, first-hand observation, and/or a symptom survey.

5.2 Ergonomic Hazard Control

The supervisor, with the technical assistance of the EPM and the SOHS, shall implement all engineering, administrative, and work practice controls recommended during the ergonomic assessment. The EPM shall follow-up to determine whether the changes were successful and if the employee is experiencing improvement of MSD symptoms.

6.0 TRAINING

The DOHS staff conducts ergonomic training using the following training formats.

6.1 Web-based Training

The ergonomics Web site provides training information for employees in the laboratory, office, patient care areas, and shops. Each section of the Web site instructs employees on proper engineering, administrative, and work-practice controls. Supervisors are encouraged to instruct new employees to use the Web site to self-evaluate their work area.

6.2 Ergonomic Training Classes

Periodically, staff of the DOHS provides training classes on office, laboratory, patient care, and industrial ergonomics. Patient care ergonomic training is conducted with the assistance of the OMS-PT. All training classes are conducted on-site or in a NIH auditorium/conference room.

6.3 Training Videos

The DOHS has produced training videos on office and laboratory ergonomics. Each video is approximately 25 minutes in length. The videos are loaned to ICs for employee training, and may be used by the EPM, TAB-IHs, and SOHSs during training classes or presentations. An industrial ergonomic training video, which is available from the EPM, may be used to assist in instructional classroom and on-site training.

6.4 One-On-One Training

One-on-one ergonomic training is provided to employees during ergonomic evaluations. During an office ergonomic evaluation, the employee is provided a copy of the NIH Computer Workstation Ergonomics Handout (CWEH) and the NIH Office Ergonomic Evaluation Checklist (OEEC). The CWEH provides information on services the DOHS can provide concerning ergonomics, proper workstation adjustments, and suggested office stretching exercises. The OEEC is used whenever an office ergonomic evaluation is performed by the EPM or TAB-IH. If a question on the checklist is answered 'NO,' recommendations to mitigate the problem are recorded on the OEEC.

The EPM maintains a database of employees who have completed ergonomic training. The employee remains in the database for the period of his or her employment at the NIH.

7.0 MEDICAL MANAGEMENT

Supervisors shall notify employees to report all signs and symptoms of a WMSD to the OMS. The OMS is located in the Clinical Center (Building 10), Room 6C306, and in Building 13, Room G904. The OMS provides employees a mechanism for reporting signs and symptoms of WMSDs, and provides evaluation, treatment, follow-up, and recommended work restrictions. The OMS-PT provides continuing medical management to NIH employees who have been diagnosed with a WMSD. After six weeks of medical management, the OMS-PT will refer the NIH employee to medical care outside of the NIH under [worker's compensation](#). In some instances where the OMS-PT has a high patient load, the employee will be referred directly to his or her outside physician under worker's compensation. The employee's supervisor shall ensure that the employee follows all work restrictions.

8.0 PROGRAM EVALUATION

The NIH EP shall be evaluated annually by the EPM to ensure program effectiveness. Typically, the EPM will analyze injury/illness reports with reported WMSDs to determine:

- a. the total number of reported WMSDs for the year;
- b. the type of work these employees perform;
- c. whether these employees received ergonomic training prior to their WMSD; and
- d. any changes or trends in the reporting of WMSDs.

This data will be used to determine whether the program effectively reduced the number and severity of the reported WMSDs.