# **Ergonomics Program**

# Purpose

The purpose of this program is to effectively eliminate or control Work-related Musculoskeletal Disorders (WMSD) and hazards by providing management leadership and employee involvement in the identification and resolution of hazards and by providing training, medical management and evaluation as an on-going process.

*Ergonomics*: is 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. Ergonomic design is the application of this body of knowledge to the design of the workplace (i.e., work tasks, equipment, environment) for safe and efficient use by workers. Good ergonomic design makes the most efficient use of worker capabilities while ensuring that job demands do not exceed those capabilities.

**Ergonomics program** is a **systematic process** for anticipating, identifying, analyzing and controlling WMSD hazards.

- A **process** is the activities, procedures, and practices that you set up to control WMSD hazards.
- **Systematic** means these actions are ongoing and conducted on some routine basis that is appropriate to the workplace conditions.

# **Covered Tasks**

This program covers all jobs involved in manufacturing and material handling and other jobs where there are work related musculoskeletal disorder hazards.

# **Program Goals**

The Primary permanent goals of this program are:

- 1. Reduction in injuries & illnesses
- 2. Reduction in absenteeism
- 3. Reduction in employee turnover
- 4. Increased productivity & quality

Short-term goals may be established as a means of meeting the permanent goals

## **Program Elements**

- 1. Management Leadership & Employee Participation
- 2. Hazard Identification & Information
- 3. Job Hazard Analysis & Control
- 4. Training
- 5. Medical Management
- 6. Program Evaluation
- 7. Records

## 8. Element 1: Management Leadership & Employee Involvement

**Policy:** Employees are highly encouraged to bring their concerns to supervisors and management. Feed back from employees is an important means of identifying ergonomic hazards. When a WMSD is identified, the Ergonomic Program Coordinator will provide a response and recommended action within 48 hours of receiving notification of the hazards or condition.

#### Management will:

(1) Assign and communicate responsibilities for setting up and managing the ergonomics program so managers, supervisors and employees know what is expected of them and how they are held accountable for meeting those responsibilities. The assignment of specific responsibilities is published under a separate memorandum.

(2) Provide those persons with the authority, resources, information and training necessary to meet their responsibilities.

(3) Examine existing policies and practices to ensure they encourage reporting and do not discourage reporting.

(4) Identify at least one person to:

(i) Receive and respond promptly to reports about signs and symptoms of WMSDs, WMSD hazards and recommendations

(ii) Take action, where required, to correct identified problems

(5) Communicate regularly with employees about the program and their concerns about WMSDs. This shall be accomplished through safety and health committees, postings on employee bulletin boards and routine safety training meetings.

Employee Participation: Employees (and their designated representative) will be provided:

(1) A way to report signs and symptoms of WMSDs and WMSD hazards, and to make recommendations about appropriate ways to control them. Reporting procedures include notification of immediate supervisor, ergonomic suggestion forms and medical management forms. Any one of these methods constitutes a means of reporting and will require action on the part of the Program Administrator.

(2) Prompt responses to their reports and recommendations. 48-hour response will be provided for all reports of WMSDs and WMSD hazards.

(3) Access to information about the ergonomics program. This program is available to all employees for review.

(4) Ways to become involved in developing, implementing and evaluating:

(i) Job hazard analysis and control. This is accomplished by participation on safety & health committees, suggestions for supervisors & management, review and comment on existing job hazard analysis and other appropriate means of communication.

(ii) Training. Feedback from employees on the quality and usefulness of ergonomic training will be reviewed by the program administrator to be used for training modifications to improve effectiveness.

(iii) The effectiveness of the program and control measures. Safety & Health Committees are the primary means of employee involvement in this area. Additionally, all comments, recommendations and suggestions will be forwarded to the program administrator for action and response comment. (see Appendix "A")

## **Element 2: Hazard Identification & Information**

#### Identification

Hazard identification is accomplished by:

(1) Reports (written or verbal)WMSD of signs, symptoms hazards or control recommendations from employees and supervisors.

(2) Review of existing safety & health records for WMSDs and WMSD hazards.

(3) Routine facility safety & health inspections by management and supervisors

#### **Employee Information**

For those current and new employees in manufacturing operations, manual handling operations, and other jobs with WMSDs, the following information will be provided:

(1) How to recognize the signs and symptoms of WMSDs, and the importance of early reporting of signs and symptoms

(2) Hazards that are reasonably likely to be causing or contributing to WMSDs

(3) How to report signs and symptoms of WMSDs and WMSD hazards, and make recommendations

**Information Methods** include, but are not limited to, information sheets, videotapes, or classes. Information will be provided in a way that employees are able to understand. Employees will be given an opportunity to ask questions, receive answers, and be provided information in the languages employees use and at levels they comprehend.

# Element 3: Job Hazard Analysis & Control Job Hazard Analysis

The purpose of Job Hazard Analysis is to identify WMSD hazard elements to provide information for effective control measure. When WMSD hazards are identified, a full JHA will be conducted and control measures implemented to eliminate or control the hazards to the extent feasible. **NOTE:** The purpose of job hazard analysis is to pinpoint the cause of the problem. If the cause is obvious, you may move directly to controlling the WMSD hazards without conducting all of the steps of job hazard analysis.

- (1) Make a list of (or a representative sample of):
  - (i) Employees in the problem job; and

(ii) Employees who perform the same physical work activities but in another job. This is called a similar job. If employees in a similar job are exposed to the same WMSD hazards as employees in the problem job, the similar job also is a problem job. You must expand your ergonomics program to include that job and those employees;

(2) Ask those employees:

(i) Whether they are experiencing signs or symptoms of WMSDs;

(ii) Whether they are having difficulties performing the physical work activities of the job, and

(iii) Which physical work activities they associate with the problem;

(3) Observe employees performing the job in order to identify job factors that need to be evaluated; and

(4) Evaluate those job factors to determine which ones are reasonably likely to be causing or contributing to the problem.

### **Control Measures**

Successful control measures include the following either separately or in combination. **NOTE:** Where solutions are obvious and the hazards may be eliminated quickly, implementation of controls is permitted without following all of the steps of the control process. Interim control measures may be implemented, if practical, until permanent control measures are in place.

#### The Control Measure Process involves:

(1) Identification, evaluation and implementation of feasible control measures (interim and permanent) to control the WMSD hazards. This includes prioritizing the control of WMSD hazards, where necessary.

(2) Tracking progress in controlling the WMSD hazards, particularly if prioritizing of control of the hazards is necessary.

(3) Communication of results of the job hazard analysis to other areas of the workplace (e.g., procurement, human resources, maintenance, design, and engineering) whose assistance may be needed to successfully control the WMSD hazard.

(4) Identification of hazards when equipment is changed, re-designed or purchased and when change occurs in processes or facilities.

## **Control Methods**

(1) Engineering Controls, where feasible, are the preferred method for controlling WMSD hazards. Engineering controls are the physical changes to jobs that control exposure to WMSD hazards. Engineering controls act on the source of the hazard and control employee exposure to the hazard without relying on the employee to take self-protective action or intervention. Examples of engineering controls for WMSD hazards include changing, modifying or redesigning the following:

- Workstations
- Tools
- Facilities
- Equipment
- Materials
- Processes

(2) Work Practice Controls are controls that reduce the likelihood of exposure to WMSD hazards through alteration of the manner in which a job or physical work activities are performed. Work practice controls also act on the source of the hazard. However, instead of physical changes to the workstation or equipment, the protection work practice controls provide is based upon the behavior of managers, supervisors and

employees to follow proper work methods. Work practice controls include procedures for safe and proper work that are understood and followed by managers, supervisors and employees. Examples of work practice controls for WMSD hazards include:

- Safe and proper work techniques and procedures that are understood and followed by managers, supervisors and employees.
- Conditioning period for new or reassigned employees.
- Training in the recognition of MSS hazards and work techniques that can reduce exposure or ease task demands and burdens.

(3) Administrative Controls are procedures and methods, typically instituted by the employer, that significantly reduce daily exposure to WMSD hazards by altering the way in which work is performed. Examples of administrative controls for WMSD hazards include:

- Employee rotation
- Job task enlargement
- Adjustment of work pace (e.g., slower pace)
- Redesign of work methods
- Alternative tasks
- Rest breaks

(4) **Personal Protective** Equipment (PPE) may be used as an interim control, but will not be used as a permanent control where other controls are feasible. PPE used for this purpose will be provided it at no cost to employees, and only by a physician's order.

## **Continuing Control Process**

After implementation of feasible permanent controls, the possibility exists that WMSD may continue or re-occur. In these cases the following steps will be taken.

(1) Promptly check out employee reports of signs and symptoms of WMSDs to determine whether medical management is needed.

(2) Promptly identify and analyze the WMSD hazards, and develop a plan for controlling them

(3) Track progress in implementing the plan and measure success in eliminating or reducing WMSDs further; and

(4) Continue to look for solutions for the problem job and implement feasible ones as soon as possible.

# **Element 4: Training**

#### Training will be provided to

(1) All employees in problem jobs, and all employees in similar jobs that have been identified as problem jobs;

- (2) All personas involved in setting up managing the ergonomics program;
- (3) All supervisors. (see Appendix "B")

FOR	Employees must understand	
Employees in problem jobs, employees in similar jobs that are problem jobs, and their supervisors	<ol> <li>How to recognize WMSD signs and symptoms, and the importance of early reporting.</li> <li>How to report WMSD signs, symptoms and hazards, and make recommendations.</li> <li>WMSD hazards in their jobs and the general measures they must follow to control WMSD hazards.</li> <li>Job-specific controls and work practices that have been implemented in their jobs.</li> <li>The ergonomics program and their role in it.</li> <li>The requirements of this standard</li> </ol>	
Persons involved in setting up and managing the ergonomics program	The ergonomics program and their role in it. How to identify and analyze WMSD hazards. How to identify, evaluate and implement measures to control WMSD hazards. How to evaluate the effectiveness of ergonomics programs.	

#### **Training Frequency**

FOR	Training will be provided	
Employees in problem jobs, employees in similar jobs that are problem jobs, and their supervisors	<ol> <li>When the program is first set up in their jobs.</li> <li>When they are initially assigned to problem jobs.</li> <li>After control measures are implemented in their jobs.</li> <li>Periodically as needed (i.e., significant changes to the job, new WMSDs or WMSD hazards are identified in the job, unsafe work protections of bear and and least even 2 users.</li> </ol>	
Persons involved in setting up and managing the ergonomics program	practices observed) and at least every 3 years. When they are initially assigned to setting up and managing the ergonomics program. Periodically as needed (i.e., program deficiencies revealed in evaluation, significant changes in ergonomics program) and at least every 3 years.	

# **Element 5: Medical Management**

The [Professional Health Care Provider] will make available prompt and effective medical management whenever an employee has a WMSD. (This means that when an employee reports signs or symptoms of a WMSD. All reports will be processed to determine whether medical management is necessary). Medical management, including recommended work restrictions, will be provided at no cost to the employee. Medical treatment protocols for the health care professions will establish WMSDs. (see Appendix "C")

#### **Reports of WMSDs**

(1) When reports of WMSDs are made, employees will be provided with prompt access to health care professionals (HCPs) for effective evaluation, treatment and follow up; and

(2) Information will be provided to HCPs to help ensure medical management is effective, and

(3) Written medical opinion will be obtained from the HCP and the employee will be promptly provided a copy.

#### Information to be provided to the health care professional

(1) Descriptions of the employee's job and hazards identified in the hazard analysis,

(2) Descriptions of available changes to jobs or temporary alternative duty to fit the employee's capabilities during the recovery period,

(3) A copy of this program and WISHA standard, with medical management requirements pointed out; and

(4) Opportunities to conduct workplace walkthroughs.

#### Health care professional written opinion

(1) The HCP's written opinion must contain:

(i) The work-related medical conditions related to the WMSD reported;

(ii) Recommended work restrictions, where necessary, and follow-up for the employee during the recovery period;

(iii) A statement that the HCP has informed the employee about results of the evaluation and any medical conditions resulting from exposure to WMSD hazards that require further evaluation or treatment; and

(iv) A statement that the HCP has informed the employee about other physical activities that could aggravate the WMSD during the recovery period.

(2) To the extent permitted and required by law, employee privacy and confidentiality will be maintained regarding medical conditions identified during the medical management process. HCPs will be instructed not to reveal in the written opinion or in any other communication with you specific findings, diagnoses or information that is not related to WMSD hazards in the employee's job.

#### **Work Restriction Policy**

(1) Work restrictions recommended for the employee will be provided during the recovery period;

(2) The employee's total normal earnings, seniority, rights and benefits will be maintained when work restrictions are prescribed or are voluntarily provided by [Professional Health Care Provider]; and

(3) Necessary periodic follow-ups with the HCP will be provided for the employee during the recovery period.

#### **Continuance of Work Restrictions Policy**

Employee's total normal earnings, seniority, rights and benefits will be maintained when work restrictions are recommended by the HCP or voluntarily provided by the [Professional Health Care Provider] until the first of the following occurs:

(1) The employee is recovered and able to return to the job, OR

(2) Effective measures are implemented that control WMSDs hazards to the extent the job does not pose risk of harm to the employee even during the recovery period; OR

(3) There is a final medical determination that the employee is permanently unable to return to the job, OR

(4) 3 months have passed

#### **Compensation Policy**

Direct compensation (total normal earnings, seniority, rights and benefits) may be reduced by the amount an employee receives during the work restriction period from any of the following:

(1) Workers' compensation payments for lost earnings

(2) Payments for lost earnings from a compensation or insurance program that is publicly funded or funded by [State or Federal Agencies].

(3) Income from employment with another employer made possible by virtue of the work restrictions.

## **Element 6: Program Evaluation**

Evaluation of the ergonomics program and controls will be conducted periodically and at least every 3 years, to ensure effective administration and management and compliance with regulatory requirements.

#### **Program Evaluation Process**

The following procedures will be used to evaluate the effectiveness of the ergonomics program and control measures.

(1) Monitoring of program activities to ensure that all the elements of your ergonomics program are functioning.

(2) Selection and implementation of effectiveness measures, both activity and outcome measures, to evaluate the program and the controls to ensure that they are in compliance with regulatory requirements.

(3) Establishment of baseline measurements to provide a starting point for measuring the effectiveness of the program and the controls.

EXAMPLES OF	EXAMPLES OF
ACTIVITY MEASURES	OUTCOME MEASURES
<ol> <li>Plan to implement ergonomics program has been developed.</li> <li>Number of employee reports and recommendations.</li> <li>Average time between employee reports and your response</li> <li>Length of time since the last review of safety and health records.</li> <li>Number of hazards identified.</li> <li>Number of employees who have received ergonomics information.</li> <li>Number of jobs analyzed.</li> <li>Number of employees interviewed for job analyses and remaining to be interviewed.</li> <li>Number of jobs controlled.</li> <li>Number of job changes made.</li> <li>Number of employees trained and waiting to be trained.</li> <li>Number of worker hours devoted to the ergonomics program.</li> </ol>	<ol> <li>Number of OSHA recordable MSDs.</li> <li>Reported symptoms of WMSDs.</li> <li>WMSD incidence rates per job title.</li> <li>Number of workers' compensation claims.</li> <li>Number of lost-workdays WMSDs.</li> <li>Average lost workdays per WMSD.</li> <li>Severity rate of WMSDs.</li> <li>Symptom survey results.</li> <li>Annual medical costs for WMSDs.</li> <li>Average medical costs per WMSD.</li> <li>Annual workers' compensation costs.</li> <li>Average workers' compensation costs per WMSD.</li> <li>Annual workers' compensation costs per Job title.</li> <li>Employee absentee rates per job title.</li> <li>Employee absentee rates per job title.</li> </ol>

#### **Program Evaluation Findings**

All program deficiencies found will be corrected promptly.

# **Element 7: Records**

Written records of the program will be maintained if:

(1) There is more than one worksite or establishment in which this job is performed by employees; OR

(2) The job involves more than one level of supervision; OR

(3) The job involves shift work.

#### **Records and Retention Requirements**

The following table lists the required records and retention periods

Required Records	Retention Period	
1. Employee reports and [Bureau and/or Facility Name] responses	3 years	
Results of job hazard analysis Plans for controlling	3 years	
WMSD hazards Evaluations of program and controls	or	
	until replaced by updated record	
Medical management records	The duration of the injured employee's	
	employment plus 3 years	

**NOTE:** Other regulatory requirements for record keeping of the Access to Employee Exposure and Medical Records Standard will be followed in addition to the requirements of this program

# **Definition of Terms**

Administrative controls are procedures and methods, typically instituted by the employer, that significantly reduce daily exposure to WMSD hazards by altering the way in which work is performed. Examples of administrative controls for WMSD hazards include:

- 1. Employee rotation
- 2. Job task enlargement
- 3. Adjustment of work pace
- (e.g., slower pace)

- 1. Redesign of work methods
- 2. Alternative tasks
- 3. Rest breaks

Exercise programs (e.g., stretching) are not prohibited, but they are not administrative controls under the WISHA standard.

**Effectiveness measures** are the indicators used to assess whether an ergonomics program and controls are successfully controlling WMSD hazards and reducing the number and severity of WMSDs. Effectiveness measures include both activity and outcome measures.

**1.** Activity measures are indicators used to measure interim accomplishments in building and maintaining an ergonomics program. These measures are used to assess the

functioning of the various activities in your program (e.g., number of hazards identified, number of employees trained).

- 2. **Outcome measures** are indicators used to quantitatively assess long-term success of the program and interventions that have been put into place (e.g., number of lost workdays, number of hazards controlled, severity of WMSDs).
- 3. Engineering controls are physical changes to jobs that control exposure to WMSD hazards. Engineering controls act on the source of the hazard and control employee exposure to the hazard without relying on the employee to take self-protective action or intervention. Examples of engineering controls for WMSD hazards include changing, modifying or redesigning the following:

$\boldsymbol{\omega}$	U	$\mathcal{O}$		
1.	Workstations		1.	Equipment
2.	Tools	-	2.	Materials
3.	Facilities	-	3.	Processes

**Ergonomics** is 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. Ergonomic design is the application of this body of knowledge to the design of the workplace (i.e., work tasks, equipment, environment) for safe and efficient use by workers. Good ergonomic design makes the most efficient use of worker capabilities while ensuring that job demands do not exceed those capabilities.

**Ergonomics program** is a **systematic process** for anticipating, identifying, analyzing and controlling WMSD hazards.

- A **process** is the activities, procedures, and practices that you set up to control WMSD hazards.
- **Systematic** means these actions are ongoing and conducted on some routine basis that is appropriate to the conditions of your workplace.

Health care professionals are persons educated and trained in the delivery of health care services who are operating within the scope of their license, registration, certification, or legally authorized practice when they are performing the medical management requirements of this standard.

Job factors are workplace conditions and physical work activities that must be considered when conducting a job hazard analysis in order to determine whether WMSD hazards are present in a job. This standard covers the following job factors:

THIS PROGRAM COVERS THESE JOB FACTORS	INCLUDING THESE COMPONENTS OF JOB FACTORS		
Physical demands of the work tasks or job	<ol> <li>Force</li> <li>Repetition</li> <li>Work postures</li> <li>Duration</li> <li>Local contact stress</li> </ol>		

Workstation layout and space	Work reaches Work heights Seating Floor surfaces Contact stress
Equipment used and objects handled	Size and shape Weight and weight distribution Handles and grasp surfaces Vibration
Environmental conditions	Cold and heat Glare (as related to awkward postures)
Work organization	Work-recovery cycles Work rate Task variability

**Known hazard** means hazards in your workplace that you know are reasonably likely to cause or contribute to a WMSD. The following are known hazards covered by the OSHA ergonomic

standard:

- WMSD hazards identified in insurance reports.
- WMSD hazards identified in consultant reports.
- WMSD hazards identified in prior OSHA inspections.
- WMSD hazards identified in self-audits.
- WMSD hazards identified and communicated to you by HCPs.
- Accepted WMSD workers' compensation claims.

Manual handling operations are physical work activities meeting these criteria:

#### (1) They involve lifting/lowering, pushing/pulling, or carrying; AND

(2) They involve exertion of considerable force because the particular load is heavy **OR** the cumulative total of the loads during a workday is heavy (i.e., substantial loads); **AND** 

(3) These manual handling work activities are a significant part of the employee's regular job duties.

Manufacturing operations cover a range of jobs that are directly involved in producing durable and non-durable goods. Manufacturing production jobs involve working supervisors and all nonsupervisory employees who engage in fabricating, processing, assembling, and other services closely associated with manufacturing production. In this standard, manufacturing operations are limited to those that meet these criteria:

(1) They are performed in manufacturing industries; AND

(2) They are **production jobs** performed by employees and their supervisors in those industries; **AND** 

(3) The production work activities are a significant part of the employee's regular job duties.

While each job must be considered on the basis of its actual duties, the following table lists job categories that typically fall inside and outside this definition:

EXAMPLES OF MANUFACTURING	EXAMPLES OF JOBS THAT TYPICALLY ARE NOT		
PRODUCTION JOBS	MANUFACTURING PRODUCTION JOBS		
<ol> <li>Assembly line jobs producing:         <ol> <li>Products (durable and non-durable)</li> <li>Subassemblies</li> <li>Components and parts</li> </ol> </li> <li>Paced assembly line jobs (assembling and disassembling)</li> <li>Piecework assembly jobs (assembling and disassembling) and other time critical assembly jobs</li> <li>Product inspection jobs (e.g., testers, graders)</li> <li>Meat, poultry, and fish cutting and packing</li> <li>Bindery jobs</li> <li>Machine operation</li> <li>Machine loading/unloading</li> <li>Apparel construction jobs</li> <li>Food preparation assembly line jobs</li> <li>Commercial baking jobs</li> <li>Cabinetmaking</li> <li>Tire building</li> <li>Warehouse jobs in manufacturing facilities</li> <li>Rework specialists</li> <li>Maintenance personnel</li> </ol>	<ol> <li>Administrative personnel</li> <li>Clerical staff</li> <li>Supervisors and managers who do not perform production job</li> <li>Technical staff (e.g., engineering, product development)</li> <li>Analysts and programmers</li> <li>Sales and marketing</li> <li>Buyers/procurement</li> <li>Customer service employees</li> <li>Mail room</li> <li>Security guards</li> <li>Cafeteria personnel</li> <li>Grounds personnel (gardeners, grounds keepers)</li> <li>Jobs in power plant in manufacturing facility</li> <li>Janitors</li> </ol>		

**NOTE:** Some jobs that are not manufacturing production jobs may still be manual handling jobs under this program or the WISHA standard.

**Medical management** is the process for assuring that employees with WMSDs are provided with the following at no cost to employees:

- A mechanism for early reporting of signs and symptoms of WMSDs;
- Early assessment of reports;
- Access to prompt and effective evaluation, treatment and follow-up by HCPs;
- Work restrictions recommended by HCPs;

Medical management also includes the process of communicating with HCPs. Medical management does not include establishing specific medical treatments for WMSDs. Medical treatment protocols and procedures are established by the health care professions which are contracted through [Professional Health Care Provider].

**Musculoskeletal disorders (MSDs)** are injuries and disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal disks. Examples of MSDs include:

- 1. Carpal tunnel
- syndrome
- 2. Epicondylitis
- 3. Synovitis
- 4. Muscle strains
- 5. Raynaud's phenomenon
- 6. Sciatica

- 1. Tendinitis
- 2. Rotator cuff tendinitis
- 3. De Quervains' disease
- 4. Carpet layers knee
- 5. Trigger finger
- 6. Low back pain

No cost to employees means that training, medical management and other requirements of this standard are provided to employees free of charge and while they are "on the clock."

Periodically means that a process or activity, such as record review or training, is performed on a **regular basis**, which is appropriate for the conditions in the workplace. Periodically also means that the process or activity is conducted **as needed**, such as when significant changes are made in your workplace.

Personal protective equipment (PPE) is an interim control device worn or used while working to protect employees from exposure to WMSD hazards. In this standard, PPE includes items such as gloves and kneepads.

Physical work activities are the physical demands, exertions or functions of the task or job.

Problem job is any job in which you must set up a full ergonomics program, including job hazard analysis. The following are problem jobs in this standard:

- (1) A manufacturing or manual handling job where a known hazard exists or a WMSD is reported; **AND**
- (2) Any other job in your workplace where a WMSD is reported; AND

(3) A similar job in which employees are exposed to the same WMSD hazard as employees in a problem job.

Representative sampling is a strategy to adequately characterize exposure of a group of employees (i.e., employees in a problem job) by analyzing the exposure of a subset of that group rather than all members of the group. The employees selected for representative sampling analysis must be those who are reasonably believed to have the greatest exposure to WMSD hazards in the problem job, including each workshift, to correctly characterize and not underestimate the exposure of any employee in the problem job.

Resources mean the provisions necessary to develop, implement and maintain an effective ergonomics program. Resources include monetary provisions (e.g., equipment to perform job hazard analysis, training materials, controls) as well as other provisions (e.g., time to conduct job hazard analysis or review safety and health records).

Safety and health records are information generated at or for your workplace. Records include, for example, OSHA 200 logs, workers' compensation claims, WMSD-related medical reports and infirmary logs, employee reports of WMSDs or WMSD hazards, and insurance or consultant reports prepared for your workplace.

**Signs** (of WMSDs) are objective physical findings that are the basis for an OSHA recordable MSD. Examples of signs of WMSDs include:

- 1. Decreased range of motion
- 2. Decreased grip strength
- 3. Loss of function
- 4. Deformity

- 1. Swelling
- 2. Cramping
- 3. Redness/loss of color

Similar jobs are jobs that involve the same physical work activities as a problem job, even if they are not defined by the same title or classification.

**Symptoms** (of WMSDs) are physical indications that your employee may be developing a WMSD. Symptoms can vary in their severity depending on the amount of exposure the employee has had. Often symptoms appear gradually as muscle fatigue or pain at work that disappears during rest. Usually symptoms become more severe as exposure continues (e.g., tingling continues when your employee is at rest, numbness or pain makes it difficult to perform the job, and finally pain is so severe that the employee is unable to perform physical work activities). Examples of symptoms WMSDS include:

1.	Numbness	1.	Tingling
2.	Burning	2.	Aching
3.	Pain	3.	Stiffness

**Temporary alternative duty jobs** are assignments given to employees with WMSDs during the recovery period until the health care provider releases the employee from work restrictions.

**Work practice controls** are controls that reduce the likelihood of exposure to WMSD hazards through alteration of the manner in which a job or physical work activities are performed. Work practice controls also act on the source of the hazard. However, instead of physical changes to the workstation or equipment, the protection work practice controls provide is based upon the behavior of managers, supervisors and employees to follow proper work methods. Work practice

controls include procedures for safe and proper work that are understood and followed by managers, supervisors and employees. Examples of work practice controls for WMSD hazards

include:

- Safe and proper work techniques and procedures that are understood and followed by managers, supervisors and employees.
- Conditioning period for new or reassigned employees.
- Training in the recognition of MSD hazards and work techniques that can reduce exposure or ease task demands and burdens.

Work-related means that the physical work activities or workplace conditions in the job are reasonably likely to be causing or contributing to a reported MSD. For this standard, an MSD is work-related if:

(1) WMSD hazards are present in a job where an MSD has been reported; AND
(2) The hazards are reasonably likely to cause or contribute to the type of MSD reported; AND

(3) A **significant part** of the employee's **regular job duties** involves exposure to these WMSD hazards (i.e., not incidental exposure).

Work restrictions are any limitation placed on the manner in which an employee with a WMSD performs a job during the recovery period. Work restrictions include modifications and restrictions to the employee's current job, such as limiting or reducing the intensity or duration of exposure; and reassignment to temporary alternative duty jobs. Work restrictions also include complete removal from the workplace.

**WMSD hazards** are workplace conditions or physical work activities that cause or are reasonably likely to cause or contribute to a WMSD.

This material was produced under grant SH26336SH4 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government