

TRAINING PROGRAM

trainer's guide

ERGONOMICS—INDUSTRIAL



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This guide will help you develop a training program that will support a safe and productive workplace environment for your employees. It will help you to:

- Prepare and organize your training session.
- Assemble training materials.
- Present the PowerPoint® slide show.
- Conduct training exercises.
- Stimulate discussion that applies to the topic presented in the presentation and to your organization's work environment.
- Document the training and training feedback for continuous improvement.

Training Objectives

When the training is completed, trainees exposed or potentially exposed to musculoskeletal disorders (MSDs) will be able to:

- Recognize risk factors for MSDs.
- Identify the signs and symptoms of MSDs that may result from exposure to risk factors.
- Understand general methods for controlling MSDs, the process the employer is using to address and control risk factors, the trainees' role in the control process, and ways that trainees can actively participate.
- Know the procedures for reporting risk factors and MSDs, including the names of designated persons who should receive the reports.

Rationale for Training

According to the Bureau of Labor Statistics (BLS), strains and sprains are the leading cause of workplace injuries and illnesses. Many of these injuries are part of a class of injuries known as "musculoskeletal disorders" or "MSDs." This term is used in scientific literature to refer collectively to a group of injuries and illnesses that affect the musculoskeletal system; there is no single diagnosis for MSDs. The U.S. Department of Labor (DOL) defines an MSD as an injury or disorder of the muscles, nerves, tendons, joints, cartilage, or spinal disks. They do not include disorders caused by slips, trips, falls, motor vehicle accidents, or similar accidents. Injuries and illnesses that result from repetitive motions are prevented or controlled through ergonomics. Ergonomics is the science of fitting working conditions to the people who have to do the work through the design of equipment and safety procedures.

In April 2002, DOL unveiled what it calls "a comprehensive approach designed to dramatically reduce and prevent ergonomic injuries in the workplace." The DOL strategy features a combination of guidelines, outreach, enforcement, and research. DOL's Occupational Safety and Health Administration (OSHA) has already issued voluntary ergonomics guidelines for nursing homes, retail grocery stores, and the poultry processing industry.

Regulatory Overview

29 USC 654

Employers must keep their workplaces free from recognized serious hazards under the federal General Duty Clause statute (U.S. Code Title 29, Section 654). This includes ergonomic hazards. OSHA will not focus its enforcement efforts on employers that have implemented effective ergonomic programs or who are making good-faith efforts to reduce ergonomic hazards. OSHA will conduct inspections for ergonomic hazards and issue citations under the General Duty Clause and issue ergonomic hazard alert letters where appropriate. OSHA will conduct follow-up inspections or investigations within 12 months of certain employers who receive ergonomic hazard alert letters.

OSHA plans to focus ergonomics inspection resources on industries with relatively high rates of injuries that appear to be related to ergonomic hazards and where there are feasible methods available to reduce those hazards. In addition, regional or area offices may implement Local Emphasis Programs (LEPs) in industries with high musculoskeletal disorders or repeated trauma rates and known ergonomic hazards. Four industries for which LEPs were implemented in recent years include hospitals, warehousing, meat packing, and automotive parts manufacturing. OSHA will also continue to respond to employee complaints about serious ergonomic hazards.

The only government entity at the state or federal level with regulations specific to ergonomics is the state of California.

Training Requirements

If you've not yet considered developing an ergonomics program, perhaps OSHA's industry-specific guidelines will inspire you to get started. Here are a few tips to facilitate your efforts:

- Encourage employees to let you know if work is causing them discomfort. Pay attention to their concerns and investigate them. If necessary, bring in a professional to conduct an assessment.
- If you have a safety committee in place, consider developing an ergonomics subcommittee. Get members the training they need and charge them with specific tasks, including research.
- Look for low-cost resources, like risk management services provided by your workers' compensation carrier, an ergonomist from a local college, programs developed by a trade group or labor union, or your OSHA area office.

If you opt for outside expertise, choose carefully. Hire experience and a proven track record, check references, and look for appropriate education and designation or certification.

Following are recommended guidelines for conducting your ergonomics training program.

Trainer qualifications. Training should be provided by someone who understands the science of MSDs and their symptoms and who is thoroughly familiar with ergonomic program design and implementation procedures.

Audience. Training and information should be provided to any employees who perform or are likely to perform repetitive motions as part of their normal job functions or perform special tasks that involve repetitive motion over an extended period.

Training frequency. Training should take place at the time of employment or reassignment to a new position, whenever risk factors for MSDs change, and when signs and symptoms of MSDs develop.

Delivery method and format. Training may be delivered in a classroom setting, hands-on at the worksite, and in any format that leads to comprehension and understanding (e.g., computer-based training (CBT), slide show, video, hands-on demonstration, or a combination).

Trainee evaluation. Measures of training effectiveness can be performance based (observed behavior) or by written or oral test.

Recordkeeping. It is recommended that you document and maintain records of the date and type of training of employees.

State requirements. California is the only state with ergonomics regulations.

Basic Principles of Adult Learning

Most adults are self-directed learners; they want to learn what they want, when they want, and how they want. Adult learners have their own style of learning that includes four key elements: motivation, reinforcement, retention, and transference. See the **Basic Principles of Adult Learning** guide in this product for more information about the key elements of adult learning and other insights for training adults.

This section will help you prepare for your presentation and ensure that you have all the materials you will need. You may use different materials that cover the topic if you believe they will be more effective.

Resources and Materials

The following resources and materials should be available for every training session:

- A quiet room with basic accommodations for the comfort of trainees
- Sign-in sheet (included with this product)
- Printed copies of the training program (PowerPoint® slide show notes, slide show handouts, exercises, and employee handouts)
- Copies of relevant regulations or company policies (if applicable)
- Computer and projector with the PowerPoint slide show loaded
- Screen or blank wall for projecting the slide show
- Copies of the evaluation form (optional)
- Copies of the quiz (optional)

Have the following training program materials available for ergonomics:

- A copy of your workplace's written ergonomics program
- Examples of ergonomically designed tools or equipment
- Personal protective equipment designed to prevent or reduce exposure to MSD hazards (e.g., knee pads, vibration-reduction gloves)

See the ***Appendix: Training Program Support Materials*** section for a complete list of support materials that come with this product.

Prepare the PowerPoint Slide Show

Before presenting the PowerPoint slide show, read the PowerPoint slides, slide show notes, the handouts, the exercises, and the quiz.

Prepare equipment and other support materials as suggested and appropriate for your workplace.

Slide show notes. The following slide show notes describe recommended interactive activities and materials to have on hand as you present the slide show. Each note is also embedded with the slide show notes for each slide to assist you as you are presenting your training program. They are listed here in the sequence that they are presented in the slide show:

- Ask trainees to think of some specific examples of MSDs from their own observations or experience.
- Conduct an exercise that illustrates MSDs and symptoms, if appropriate.
- Ask trainees to describe examples of repetitive work tasks at their jobs.
- Ask trainees to describe forceful exertions they have experienced and discuss them.

- Ask trainees to describe awkward postures they have experienced and discuss them. Ask everyone to stand up; have half the class bend at the waist 90 degrees and the other half squat halfway down to the floor. These are examples of static loading.
- Ask trainees to describe contact stress experiences on their jobs.
- Ask trainees to describe experiences of repeated vibration on their jobs.
- Conduct an exercise to demonstrate one or more risk factors and ask trainees to identify the MSDs related to those risk factors.
- Show trainees a copy of the company's ergonomics program, if there is one.
- Conduct an exercise that illustrates how to control an MSD hazard at your company.
- Give trainees the quiz.

Customize Slides, Slide Show Notes, and Quiz

The information contained in the PowerPoint slide show covers general guidelines and regulatory requirements for the topic that is presented. You may want to modify the slide show and quiz to meet site-specific objectives and policies or local regulatory requirements. If you have the PowerPoint software application on your computer, you may add, modify, or delete slides and slide show notes to meet your needs. See the **How to Customize PowerPoint** guide in this product for more information.

Customize specific slides and slide show notes. You may want to modify some slides and/or slide show notes to include information specific to your workplace. In the slide show notes of select slides in this presentation, we have recommended that you consider making such modifications.

Make sure that any modification or deletion of information does not diminish your ability to achieve your training goals or meet regulatory requirements.

The slides cannot be changed in the PDF version (included with this product) of the PowerPoint slide show. If you want to modify the slide show notes to correspond to any changes in the PowerPoint slide show, this can be done in the "notes" view of PowerPoint.

Customize the quiz. The quiz can be easily modified; simply type in your changes using Microsoft Word or other standard word processing application. In order to preserve the original document, change the name of the file before saving it.

Prepare Materials and Schedule the Training Session

Computer projection. If you have a computer video projection system, run a test to make sure the PowerPoint slide show runs properly.

Overhead projection. If you plan to use an overhead projector, print the PowerPoint slide show slides out on transparencies. The slides will be clearer if they are printed in color. If you don't have a color printer, your local print or copy store can print out color transparencies for you.

Slide show handouts. PowerPoint offers four options for printing slide show handouts: six slides per page, four slides per page, three slides per page, and two slides per page (in the print dialogue). We recommend you print copies of the PowerPoint slide show in three-slide per page format if you want trainees to take notes during the slide show. See the **How to Customize PowerPoint** guide in this product for information about printing slide show handouts.

Employee handouts. Prepare and copy any handouts, such as the employee handouts provided with this product or any site-specific handouts you may have.

Exercises. Determine which exercises you plan to conduct, and prepare any materials or equipment you need.

Scheduling. Schedule the class for a date and time convenient to most trainees. Groups of 15 or fewer people are ideal.

This section provides tips and suggestions for presenting training materials to trainees.

Present to Trainees

The time it will take to present the PowerPoint slide show and conduct the exercises will vary depending on the size of your facility, the complexity of issues in your workplace, the level of knowledge and comprehension of the topic by trainees, and the amount of site-specific information. In general, assume each slide will take 2 to 3 minutes to cover. If you practice your presentation, keep in mind that presentations typically take longer during the actual training.

You can use your own words rather than read from the slide show notes.

Training tip: Consider varying the format within your training program two or three times during each hour of training. For example, switch from the PowerPoint slide show to an exercise after 20 minutes of slides, then return to the PowerPoint. Most people learn via more than one format (e.g., seeing images, reading text, hearing, and activity); a multimodal presentation keeps trainees interested and energized.

Trainee Participation

Involve trainees as much as possible by asking them questions and getting them to talk about their own jobs. Encourage them to make suggestions they may have on how to improve conditions in the workplace related to the topic.

Ask trainees to talk about experiences in their workplace related to the topic. Use real-life examples as often as possible to reinforce learning.

Handout(s)

Give each trainee a copy of the handout(s) before the slide show or after the quiz.

Exercises

Multiple exercises for this topic are included with this product for your use during or after the PowerPoint slide show. The exercises may also be used independently of the slide show. Exercises are an excellent mechanism for reinforcing the training.

Questions and Answers

Answer any questions the best that you can. Even if you don't have the technical knowledge to answer a lot of questions on the topic, you can still answer the important questions about the way that your company is addressing the topic-related issues. Follow up with responses to employee questions either personally, through the employee's supervisor, or the company's intranet, if applicable.

Follow-Up

Document that the training took place and who attended. Also, provide the trainees with documentation that they have completed training (such as a certificate of completion), and be sure to notify any trainees who failed to satisfactorily complete the training.

Complete these follow-up tasks:

- Distribute the **Certificate** to successful trainees as proof of completion of training (optional).
- Distribute the **Evaluation Form** to employees and collect the completed forms (optional).
- Place copies of the **Quiz** results in each trainee's personnel file.
- File one copy of the **Attendee Sign-In Sheet** with the company records, and file one copy in the trainer's files.
- Fill in the appropriate information on the **Training Record** for each employee.
- Within 2 weeks of giving the training, talk to some of the employees and supervisors to make sure they understood what was presented and how it applies to them.

Below is a list of support materials included with this product to help you prepare the training program and document your activities.

Additional Training Materials

- **Certificate**—A customizable certificate of completion for attendees. The file allows the user to type in the training topic and the trainee's name.
- **Exercise**—An activity to help trainees apply their knowledge of work practices.
- **Employee Handout**—Single-page summary of key facts the trainee should know about the topic.

Forms

- **Attendee Sign-In Sheet**—A record of training program attendees.
- **Evaluation Form**—An evaluation by trainees of the performance of the trainer.
- **Training Record**—A record of all training sessions for each employee, including the date for refresher training.

Guidance

- **Basic Principles of Adult Learning**—A guide for training adult learners.
- **How to Customize PowerPoint**—A guide with instructions for using the PowerPoint application program and customizing the content of slides and slide show notes.