

# CHAPTER 8

## ERGONOMICS & REPETITIVE MOTION INJURY PREVENTION PROGRAM

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# SHASTA COUNTY ERGONOMICS & REPETITIVE MOTION INJURY PREVENTION PROGRAM

## 1. Purpose

This Ergonomics & Repetitive Motion Injury Program (Program) is designed to minimize employee exposure to work-related Repetitive Motion Injuries (RMIs), and to assist County employees and supervisors with early intervention and prevention strategies that could play a significant role in eliminating or minimizing the exposures which have caused RMIs.

## 2. Authority

Title 8, California Code of Regulations (General Industry Safety Orders), , Section 5110. Ergonomics.

Cal/OSHA’s Ergonomics Standard requires employers to take action to prevent repetitive motion injuries when two or more employees doing the same type of work are diagnosed with a repetitive motion injury (RMI). Employers are required to establish and implement a program designed to minimize RMIs. The program includes a worksite evaluation, control of exposures which have caused RMIs, and training of employees.

## 3. Terms

Repetitive Motion Injuries (RMIs): a term used for injuries or disorders of the muscles, nerves, tendons, joints, cartilage, and spinal discs. These ergonomic injuries or disorders are also known as Cumulative Trauma Disorders (CTDs), Repetitive Strain Injuries (RSIs), and Musculoskeletal Disorders (MSDs).

Ergonomics: the science of adapting workstations, tools, equipment, and job techniques to be compatible with human anatomy and physiology to reduce the risk of Musculoskeletal Disorder injuries due to Ergonomic Stressors. In other words, “fitting the job to the person” rather than “fitting the person to the job.”

## 4. Scope and Application

This Program applies to any job, process, or operation where an RMI has occurred to more than one employee under the following conditions:

- A. Work related causation. The repetitive motion injuries (RMIs) were predominantly caused (i.e., 50% or more) by a repetitive job, process, or operation; and
- B. Relationship between RMIs and the workplace. The employees incurring RMIs were performing a job, process, or operation of identical work activity. Identical work activity means that the employees were performing the same repetitive motion task, such as but not limited to word processing, assembly, or loading; and
- C. Medical requirements. The RMIs were musculoskeletal injuries that a licensed physician objectively identified and diagnosed; and

D. Time requirements: The RMIs were reported by the employees to the employer in the last 12 months.

## 5. Worksite Evaluation

To prevent injuries, ergonomic risk factors must be identified. Ergonomic risk factors are workplace situations that cause wear and tear on the body and can cause injury. Once these have been identified, assessments can be performed to find ways to eliminate them.

Each job, process, or operation of identical work activity covered by this Program (see Section 4) or a representative number of such jobs, processes, or operations of identical work activities, shall be evaluated for exposure which have caused RMIs.

Ergonomic risk factors can be identified through a variety of means, to include as applicable: talking with employees, conducting site inspections, job evaluations, and reviewing reported RMI related injury reports and data. The field of ergonomics examines the fit between employees and their jobs. Ergonomics considers:

- What body movements and positions people use when they work.
- What tools and equipment are used.
- The physical environment (temperature, noise, lighting, etc.) where work is performed.
- The organizational environment (deadlines, teamwork, supervision) of the workplace.
- Whether any of these factors may place an employee at an increased risk of injuries or illnesses.

The goal of ergonomics is to fit workplace conditions and job demands to the capabilities of the individual worker, instead of making the worker fit the job.

## 6. Control of Exposures

There are many ways to reduce ergonomic risk factors and help fit the workplace to the worker. Solutions can be grouped into three main categories: eliminate the hazard, improve work policies and procedures (administrative controls), and provide personal protective equipment. Often the best solution involves a combination of approaches.

### A. Eliminate the Hazard

The most effective means to control hazards is to eliminate the risk factors altogether. If elimination is not possible, then the next step is to substitute or change the tools, equipment, job design, or work area to remove the hazard completely through the application of engineering controls.

Improving the workplace is the heart of ergonomics: changing the work to fit the worker. The design should accommodate the wide range of people assigned to the task. The following are some examples of engineering controls:

- Redesign workstations and work areas to eliminate reaching, bending, or other awkward postures.
- Provide adjustable tables and chairs that can be used by various employees with a range of sizes and shapes, and that allow neutral postures.
- Provide carts for transporting material and mechanical hoists to eliminate lifting.
- Use tools that fit the hand, have no sharp edges, and eliminate awkward hand and wrist positions.
- Change where materials are stored to minimize reaching.
- Reduce the amount of force needed to perform the task.
- Design containers with handles or cutouts for easy gripping.

#### B. Administrative Controls

Following engineering controls in effectiveness is the application of Administrative controls. These include developing work policies, procedures, and practices that change how the job is done. The following are some examples of administrative controls:

- To the extent possible, rotate employees among different tasks to rest the various muscle groups of the body, reduce repetition, reduce risk of fatigue, reduce activity duration, alternate tasks, vary the routine, and ease mental demands.
- Increase staffing to reduce individual workloads.
- Provide sufficient breaks since adequate recovery time can reduce fatigue.
- Assign more staff to lifts of heavy objects.
- Encourage proper body mechanics and use of safe lifting techniques.
- Require all loads to be labeled with their weight.
- Store heavy objects at waist height.
- Follow good housekeeping practices: keep floors free of slipping or tripping hazards, maintain power tools properly to reduce vibration, and keep cutting and drilling tools sharp to reduce the force required.
- Provide workers with training on safe working postures, lifting techniques, ergonomics policies and procedures, and the safe use of lifting and carrying devices.

#### C. Personal Protective Equipment

While more permanent solutions are being found and implemented, or if unable to redesign the job or equipment to eliminate risks, personal protective equipment (PPE) can be used. PPE that can help address ergonomic problems includes:

- Knee pads for kneeling tasks.
- Shoulder pads to cushion loads carried on the shoulder.
- Gloves to protect against cold, vibration, or rough surfaces.

## 7. Responsibilities

A. Shasta County Risk Management, Loss-Prevention unit

Assist departments, supervisors, and employees in work-related RMI exposure reduction, through provision of the following:

- a. Training for employees to perform ergonomic worksite evaluations and ergonomic training within their departments.
- b. Ergonomics awareness training to employees and supervisors.
- c. Ergonomic evaluations of RMI risk factor exposures and worksite evaluations.
- d. Recommendations of control measures for exposures to RMI risk factors.
- e. Assistance in evaluating effectiveness of control measures for exposures to RMI risk factors and provide recommendations for process improvement.

B. Department Head

- a. Ensure that the requirements of Title 8 CCR Article 106 §5110, this Program, and job-specific hazards are implemented.
- b. Undertake early intervention to prevent RMIs.
- c. Ensure identification of exposure to RMI risk factors of the jobs, processes, and work activities in the department.
- d. Ensure ergonomic worksite evaluations are conducted periodically through observation of identified job functions using a check list where appropriate.
- e. Ensure that appropriate and effective control measures are determined and implemented in a timely manner.
- f. Ensure that a procedure is in place for employees to report symptoms and perceived work-related ergonomic injury risk factors to their employer.
- g. Ensure that accurate records are maintained for worksite and job task evaluations, employee safety training, exposures associated with RMIs, and reporting of symptoms and injuries; documentation shall be made available to Risk Management or representative of Cal/OSHA upon request.
- h. Monitor the effectiveness of their department's ergonomic program on an ongoing basis.
- i. Assure appropriate training and instruction is provided to all department employees.

C. Department Supervisor

- a. Ensure supervised employees are provided with, and trained to use, the appropriate existing and/or new tools, equipment, parts, and materials required for the job.
- b. Ensure employees know and understand how to report safety suggestions, ergonomic hazard observations, and signs or symptoms of injury that may be related to a work-related RMI.
- c. Attend ergonomics training to familiarize themselves with the recognition and prevention of work-related ergonomic risk factors.
- d. Ensure affected employees attend ergonomics training.

- e. Conduct periodic ergonomic worksite evaluations.
- f. Assist in the determination and/or implementation of effective control measures for exposures to work-related RMIs.

D. Employee

- a. Use the appropriate tools, equipment, parts, and materials in a safe manner, following policies and procedures.
- b. Follow established procedures and manufacturer's guidelines to ensure equipment is properly maintained; report damaged or malfunctioning equipment to their supervisor.
- c. Attend ergonomics training as required and apply the knowledge and skills acquired to actual job tasks, processes, and/or work activities.
- d. Report signs and symptoms of RMIs early, and report perceived work-related ergonomic hazards to their supervisor.

VIII. Training and Instruction.

Training and instruction are critical elements of this Program and provide an important opportunity for employee interaction and involvement.

A. Employees shall be provided training that includes an explanation of:

- a. This Program and their Department's role in addressing RMIs.
- b. The exposures which have been associated with RMIs in general, at their worksite, and for their assigned job tasks.
- c. The symptoms and consequences of injuries caused by repetitive motion.
- d. The importance of early reporting of symptoms and injuries to their supervisor.
- e. Encouragement of employees to inform the employer of hazards at the worksite without fear of reprisal.
- f. Methods used by the Department to minimize RMIs.

B. Employees shall be provided injury prevention training and instruction:

- a. At the time of initial exposure, and annually thereafter.
- b. When an employee reports RMI symptoms or hazards to their supervisor or manager.
- c. When new jobs, tasks, tools, equipment, or processes are introduced, or when the supervisor or employee identifies a previously unidentified RMI risk in their job task(s).
- d. Tailored to supervisors, as appropriate, to assure they are familiar with the hazards to which employees under their immediate direction and control may be exposed.

IX. Sources

[California Code of Regulations, Title 8, Section 5110. Repetitive Motion Injuries](#)

[Ergonomic Hazards- Injury and Illness Prevention Programs \(ca.gov\)](#)

[Manual Material Handling \(ca.gov\)](#)

[Easy Ergonomics: A Guide to Selecting Non-Powered Hand Tools \(ca.gov\)](#)

[Easy Ergonomics \(ca.gov\)](#)

California is currently the only state with its own legally enforceable ergonomics standard; other States rely on Federal OSHA:

[Ergonomics - Overview | Occupational Safety and Health Administration \(osha.gov\)](#)