
What are Ergonomic Controls?

Overview: Three Types of Ergonomic Controls

Ergonomic controls are used to help fit the workplace to the worker. They seek to place the body in a neutral position and reduce the other ergonomic risk factors. These controls must accommodate the widest range of personnel.

Ergonomic controls are grouped into three main categories. These are listed by order of preferred method for preventing and controlling ergonomic risk factors.

I. Engineering Controls are the most preferred method for controlling ergonomic risk factors because they are more permanent and effective.

Engineering controls include modifying, redesigning or replacing:

- work stations and work areas
- materials/objects/containers design and handling
- hand tools used
- equipment

Engineering Controls are the heart of ergonomics: changing the work place to fit the worker. The design should accommodate the wide range of people assigned to the task.

II. Administrative Controls deal with how work is structured. Some examples of administrative controls include:

- **Proper maintenance and housekeeping**
Proper housekeeping can reduce or eliminate awkward posture associated with extended reaches, bending or twisting when handling materials, tools or other objects. Floor surfaces should be kept free of slipping or tripping hazards. Dull cutting tools may increase the force required to use them.
- **Job rotation and enlargement**
This involves rotating workers through different jobs or enlarging jobs to rest the different muscle groups of the body, reduce repetition, and reduce mental demands.
- **Work scheduling**
Work scheduling can help avoid excessive overtime or extended workdays. It should take into account the fact that shift work can cause fatigue and thereby increase the risk of ergonomic related injury.

- **Sufficient breaks**
Instituting work-rest cycles with adequate recovery time can reduce fatigue and risk of ergonomic related injury. Short work/break cycles are best to reduce fatigue.

- **Work practice**
Work practice focuses on the way work is performed. Examples of work practice controls include:
 - modifying work procedures and practices to ensure that neutral working posture and safe work techniques are used.
 - gradual introduction to work for new and returning employees.
 - worker controlled pace and organization to reduce worker fatigue and exposure to risk factors.

- **Training**
Training in safe working postures and techniques is important, along with monitoring to make sure that modified work practices are being used. However, training on proper lifting or carrying is not necessarily the most effective way to control ergonomic hazards. The use of engineering controls and the elimination of handling materials is the most effective means to reduce or eliminate ergonomic related injuries.

III. Personal Protective Equipment (PPE) should be used as the principal means of control only as a last resort when neither engineering nor administrative controls are possible, or in the event of emergencies. It is considered the least effective form of control.

PPE does not eliminate the hazard or reduce the time of exposure. PPE simply reduces the *amount* of hazardous exposure by placing a barrier between the hazard and the worker. The most effective method of reducing or eliminating ergonomic hazards is to fix the hazard, not the worker, through engineering and administrative controls.

*Adapted from OCAW Local 1-5's Ergonomics Awareness Workbook
"Job Design with the Worker in Mind"*