

Ergonomics for Construction

Arranging the environment to meet a person's needs instead of allowing the environment to obstruct a person's needs is the key in maintaining a comfortable and efficient work environment. That just described is the science of Ergonomics: arranging the environment to fit the person. In particular, ergonomics is designing and arranging things that people use so people will interact with their environment most effectively and safely. Ergonomics means arranging the environment to fit the person.

On the construction worksite, ergonomic principles are being used to help adapt the job to fit the person, rather than force the person to fit the job. Redesigning the job to fit the worker can reduce stress and eliminate many potential injuries and disorders associated with the overuse of muscles, bad posture, and repetitive motions.

As a construction worker, your hands, wrists, arms, shoulders, backs, and legs may be subjected to thousands of repetitive twisting, forceful, or flexing motions during a typical workday. Many construction jobs can expose you to excessive vibration and noise, eyestrain, repetitive motion, and heavy lifting.

If machines, tools, and the workflow are poorly designed, they can place undue stress on tendons, muscles, and nerves. In addition, temperature extremes may aggravate or increase ergonomic stress. Your ability to recognize ergonomic problems on the construction site is the essential first step in correcting these problems and improving construction worker safety and health.

The three most important issues related to ergonomics for construction workers, and ways to control them, are listed below:

Back safety and lifting:

- Practice proper lifting techniques.
- Get help with large loads.
- Use materials handling equipment.

Equipment and tool vibration

- Use only the force necessary to perform the job.
- Hold and use tools properly.
- Rotate tasks and take break from tasks during the work day to avoid vibration for too long of a duration.

Repetitive motions:

- Perform tasks following proper job procedures at all times.
- Select the right tool for the job.
- Rotate the tasks you perform during the work day to avoid a single type of repetitive motion for too long of a duration.

