



TEMPORARY LIGHTING

All areas where work is performed, including exits and entrances, must be adequately lit

A lighting level of at least 10 foot-candles (100 lux) is recommended for general construction.

This means 150-watt light bulbs:

- suspended 8 feet high, and
- 13 feet apart.

Bulbs should be installed so that they light as large an area as possible. They should also be protected by cages, to guard against accidental damage.

Branch lighting circuits feeding temporary lighting should be kept entirely separate from power circuits, except for a common supply.

Branch lighting circuits should be protected by a breaker or fuse with a 15-amp rating. Circuits should be hard-wired directly into a distribution panel by a qualified electrician.

Replace missing or burned-out bulbs. To work safely, you must be able to see in stairwells, basements and other areas at all times.

Task lighting may be required where precision is important.

Temporary lighting can present hazards.

- Avoid contact with wires strung for temporary lighting. Frequent relocation of circuits can loosen connections, break insulation and create other hazards which may lead to shock or electrocution.
- Do not use temporary lighting circuits as extension cords. If a fuse blows, it can be dangerous to find your way to the panel in the dark.
- Ensure that exposed wires do not contact steel door frames. Temporary lines often pass through doors may accidentally close on them.
- Careful! Do not bump stringers with ladders, lengths of pipe, scaffold frames or other objects that can cause electrical contact and shock.

Ergonomics

What is ergonomics?

Ergonomics is defined as fitting the job or task to the worker to reduce the risk of musculoskeletal disorders or MSDs. These injuries develop slowly over time and occur in the soft tissues of your body like the nerves, tendons, muscles, ligaments, and joints. Examples of MSDs are low back strain, carpal tunnel syndrome, and tendonitis.

Why should we talk about ergonomics in construction?

Ergonomics can help you protect your body from injuries. Using ergonomics during work activities makes the work easier on your body and often helps you find ways to do your work more efficiently.

What are the phases of MSDs?

Unlike injuries from falls, electrocution, or other serious hazards, MSDs don't seem very serious when they first show up. They start with minor discomfort in the early stages.

These symptoms go away after a short break or at night when you don't work. But returning to the same activity the next day brings back the symptoms.

Your body can recover between these episodes of intense activity in the earlier stages when the symptoms are mild or moderate, but eventually your body won't be able to recover to normal. Recognizing problems with the work tasks that cause these symptoms is the first step to eliminating them.

What are the risks of MSDs?

There are 5 common ergonomic hazards — or problems with the work task — that may occur in work activities:

Repetition – doing the same task repeatedly that uses the same muscles over and over.

High Force – using high muscle power during activities such as heavy lifting, pushing items, gripping tools.

- Awkward Postures – working with your body held in a poor position for a long time.
- Contact Stress – when pressure from an object, such as a tool handle, is pushed on the soft body tissues.
- Hand-Arm Vibration – vibration that enters the body from power tools, and some hand tools (such as hammers) and other equipment.
- One of these performed over a long time can cause a problem, but activities with more than one hazard can increase the physical discomfort even more.

Examples of hazards:

- Repetition – Using the same arm motion to repeatedly spread mortar for 2 or more hours.
- High Force – Gripping a tile nipper with a dull blade to cut tiles.
- Awkward Postures – Spreading plaster with the arm fully extended to the side and the wrist bent.
- Contact Stress – Kneeling without wearing kneepads to finish cement.
- Hand-Arm Vibration – Using a hand-held grinder to remove mortar joints for more than 2 hours in a shift.

What can you do to prevent MSDs?

First you must recognize the hazards in your work tasks.

1. What tasks will you be doing on this project that are uncomfortable or difficult to perform?
2. Are there solutions (work techniques, tools or equipment) that would make the task easier to perform?