

# TOOLBOX TALKS

## ERGONOMIC SAFETY

Toolbox Talks are designed to promote safety discussions and best practices on the jobsite. To see more Toolbox Talks, please visit [cat.com/toolboxtalks](http://cat.com/toolboxtalks).

The Merriam-Webster Dictionary defines ergonomics as “the applied science concerned with the designing and arranging of things people use in order to improve efficiency and safety.” As one can see, this is a broad topic and every part of the body is affected by the ergonomic design of the workplace.

### FACTORS THAT CONTRIBUTE TO ERGONOMIC DESIGN:

- The amount of **repetition** involved with the job
- The **duration** of applied force from pushing, pulling, lifting or gripping
- The amount of **force** exerted or the weight of the load
- A person’s **posture**, reach and grip positions
- **Heights and distances** to working surfaces, materials and supplies
- Age, physical stature, weight, physical ability

Injuries resulting from poor ergonomic design are sometimes acute, such as sprains, but are often cumulative such as carpal tunnel syndrome. Follow the safety tips below to help improve the ergonomic performance in your work area.

### ERGONOMIC SAFETY TIPS:

#### GENERAL:

- Stretch the muscles every day before starting work
- Know your physical limitations. Do not attempt to perform activities when the work environment is not suited to you

#### BACK AND LEGS:

- Have materials and supplies raised to waist level so bending is minimized. This will help avoid lower back sprains and pulled hamstrings. If bending is required, bend at the knees and use the leg muscles to raise and lower the body
- Avoid work conditions where the shoulder blades are compressed. This is common in office environments and tight working areas. Move keyboards away and down to a location where the arms are relaxed and outstretched
- Always ask for help if loads are too heavy or awkward

#### ARMS, WRISTS AND HANDS:

- When working with power tools or other hand-held objects, avoid situations where the wrist is bent. The force of the arm should be pointing downward or outward
- Carry loads close to the body with a clear line of sight to the travel path. Avoid carrying loads away from the waist or reaching for extended periods
- Avoid using tools that vibrate continuously or aggressively, or require prolonged pinching or gripping

#### EYES AND NECK:

- Computer monitors should be at eye level and the neck should not be tilted or strained
- Ensure there is proper lighting in the work areas and computer monitors are positioned to minimize eyestrain

Discussion Date:

Employee Participants:

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There are a lot of moving parts on the jobsite. To find a safety topic relevant to your operation, please visit [cat.com/toolboxtalks](http://cat.com/toolboxtalks).