

## Ladder Safety Tips



A construction worker was working on window replacements in a building that was undergoing renovation. The worker was carrying several tubes of silicon sealant up an extension ladder and had reached a height of 16 feet when the bottom of the ladder slipped out. The worker sustained a fractured heel, broken wrist and head trauma. The accident investigation found that the ladder had been resting on wet grass that sloped away from the structure. In addition, the worker had no documented training on proper ladder selection, inspection and securement.

This is just one of many workplace accidents that can occur when a ladder is improperly used. According to the U.S. Consumer Product Safety Commission, more than 532,000 people were treated in hospital emergency rooms, doctors' offices, clinics, and other medical settings in 2007 because of injuries related to ladder use.

### Ladder Selection

Portable ladders are designed for single person use with the proper strength to support the worker as well as their tools and materials. Taking proper precautions with ladders begins with selecting the correct ladder. The following is suggestive ladder selection criteria:

- What type of work the ladder will be used for
- How much weight the ladder must carry, including tools and materials
- The condition of the ladder
- The physical work environment

### Types of Ladders

The most common ladders sold for light use are Type III light-duty ladders. These ladders are usually made of wood, metal, reinforced plastic and fiberglass. They are rated for a maximum load of 200 pounds (user plus materials). If the ladder needs to carry more weight than this, use the table below to aid your selection:

Type	Weight Rating	Duty Rating
Type 1AA	375 lbs	Super Heavy Duty
Type 1A	300 lbs	Extra Heavy Duty
Type 1	250 lbs	Heavy Duty Industrial
Type 11	225 lbs	Medium Duty Commercial
Type 111	200 lbs	Light Duty Household

It is recommended that the use of the ladder always follow the instructions and warning labels found on ladders. The instructions help the user choose the proper ladder for the job and describe the ladder weight and height limits.

*The following are general safety tips to minimize the chance of injury or fatal accident while using a ladder:*

## **Ladder Inspection**

- Look over the ladder before you buy it and each time before climbing
- Look for missing, damaged or loose components
- Do not use a damaged ladder; if damaged, tag the ladder, take it out of service and tell your supervisor
- Make sure that working parts move properly and that all connections are secure
- Check spreaders, extension ladder locks, rungs, rope and pulley systems and safety shoe/foot

## **Storage, Care and Maintenance**

- Store in a sheltered area to protect from heat, weather and corrosive materials
- Wooden ladders need a dry, well-ventilated storage area
- Keep free of oil, grease, wet paint, and other slip hazards
- Lightly lubricate moving parts
- Do not attempt to straighten a bent metal ladder. Tag it and take it out of service
- Never paint a wooden ladder, as the paint can hide defects
- Prevent sagging and warping by storing your ladders horizontally on racks or hooks with support points at the top, middle, and bottom of the ladder

## **Think Before You Climb**

- The ladder you select must be the right size for the job
- The duty rating of the ladder must be greater than the total weight of the climber, tools, supplies and other objects placed on the ladder
- Use fiberglass ladders if there is even a remote possibility of working near electricity or overhead power lines
- Never use metal, water logged or dirty wood ladders near electricity
- Fully open the stepladder and firmly lock both spreaders
- Position the ladder so you can face your work and do not have to lean sideways
- Be sure that all ladder feet are on firm, level ground
- Do not place a ladder on slippery surfaces
- Do not place loose material underneath a ladder
- Place the extension ladder top so both rails are fully supported
- Support area should be at least 12" wide on both sides of the ladder

## Ladder Usage

- Be sure your ladder has been properly set-up
- Follow all safety instructions and warnings from the manufacturer
- Wear shoes with non-slip soles when climbing
- Keep your body centered
- Use a “three point of contact climb”; have two hands and one foot, or two feet and one hand in contact with the ladder cleats and/or side rails
- Hold the ladder with one hand while working with the other
- Never let your belt buckle pass beyond either ladder rail
- Move materials with extreme caution and be careful pushing or pulling anything while on a ladder—you may lose your balance or tip the ladder
- Get help with a ladder that is too heavy to handle alone
- If possible, have another person hold the ladder when you are working on it
- Climb facing the ladder with your body centered between the rails and maintain a firm grip
- Always move one step at a time, firmly setting one foot before moving the other
- Haul materials up on a line rather than carrying them up an extension ladder

## Wrong Way to Use a Ladder

- Do not stand above the highest safe standing level
- Do not stand above the second step from the top of a stepladder and the 4th rung from the top of an extension ladder; a person standing higher may lose their balance and fall
- Do not climb a closed stepladder; it may slip out from under you
- Do not climb on the back of a stepladder; it is not designed to hold a person
- Do not stand or sit on a step ladder top, as they are not designed to carry your weight
- Do not climb a ladder if you are not physically and mentally up to the task
- Do not exceed the duty rating
- Do not permit more than one person on a single-sided stepladder or on any extension ladder
- Do not place the base of an extension ladder too close to the building as it may tip over
- Do not place the base of an extension ladder too far away from the building, as it may slip out at the bottom
- Never jump or slide down from a ladder or climb more than one rung/step at a time
- Never leave a raised ladder unattended; it could fall unexpectedly and injure someone