

Before you begin

Obtain a stepladder and a short extension ladder to use in your presentation. Use a flip chart or note board to record questions and comments from the group as you discuss ladder safety.



Introduction

Falls from an elevated level are a leading cause of injury and death in general industry and construction. Portable ladders are a commonly used item, at home as well as at work, and can lead to catastrophic injuries if you do not select the correct ladder and use it appropriately.

The two most commonly used types of portable ladders are stepladders and extension ladders. This safety talk presents information for choosing, using, storing, and maintaining each type safely.

Definition

Stepladders

- Most commonly used type of ladder
- Available in lengths up to 20 feet
- Two sections spread apart and lock into place
- Made of wood, aluminum, or fiberglass
- Must be on a flat, level surface

Extension ladders

- Mostly used to access heights above 20 feet
- Available in lengths up to 60 feet
- Consists of two or three separate sections that slide together
- Made of wood, aluminum, or fiberglass
- Must have room to lean at proper angle

Discussion

Types of portable ladders

Discuss the various types of portable ladders with the group.

Choosing the correct ladder

You must evaluate the job before choosing the type of ladder to use. Use stepladders where there is room to fully spread and lock the legs into place on a flat, firm surface. Extension ladders have two or three sections that fit together and may be expanded to reach higher than a stepladder. Ladders are divided into service classes and labeled accordingly:

- Type I, 1A, 1AA, ladders are for heavy-duty industrial use.
- Type II commercial ladders are for less-demanding business tasks.
- Type III are light-duty ladders intended for home use.

Ladder inspection

- Thoroughly inspect every ladder before use.
- Use a checklist to ensure everything is inspected.
- Keep documentation for each inspection.
- Take any damaged ladder out of service immediately.

Ladder setup

- Ensure the ladder feet are on a firm, level surface.
- Ensure lock spreaders are fully open on stepladders.
- Tie off the top and tie or stake the bottom of an extension ladder when possible. Secure the ladder when stepping off or on the ladder at an upper level.
- Place the feet of an extension ladder 1 foot away from the structure base for every 4 feet of ladder height.
- Ensure that the ladder extends at least 3 feet above the roof or support point when accessing a roof or other structure.
- Observe the minimum section overlap for extension ladders:
 - Heights up to 36 feet require minimum 3-foot overlap.
 - From 36 feet to 48 feet requires a minimum 4-foot overlap.
 - More than 48 feet requires a minimum 5-foot overlap.

Proper ladder usage

- Always face a ladder when going up or down.
- Maintain at least three-point contact on a ladder (two feet and one hand).
- Don't carry tools and equipment when climbing a ladder – use a rope to pull them up in a bucket or pouch.
- Stay within side rails of a ladder; don't over-reach to either side.
- Don't sit or stand on the top cap or top rung of a ladder.
- Always get off a ladder before trying to move it.
- Do not use a ladder as a work platform.
- Never use a metal ladder near electrical lines or equipment.

Storage and Maintenance

- Store ladders indoors in a clean, dry location when possible.
- Keep ladders clean and free of dirt, oil, and grease.
- Check all nuts, bolts, and rivets for tightness.
- Maintain non-slip cleats or feet in good condition.
- Only make repairs authorized by the manufacturer.
- Treat wood ladders with preservative – never paint.
- Lightly lubricate mechanisms such as spreaders on stepladders.

Training

All employees that use ladders should be trained by a competent person in the following areas:

- How to select the appropriate ladder for the job.
- How to properly inspect, set up and use ladders.
- How to maintain and store ladders.
- The hazards associated with ladder usage.

Conclusion

Falls from elevated levels can result in fatal or catastrophic injuries. Following these six steps when using a portable ladder will greatly reduce these types of injuries: 1) Select the correct ladder for the task; 2) inspect the ladder before use; 3) review the setup location for any hazards; 4) use the ladder properly; 5) properly store/maintain the ladder; and 6) follow your ladder safety training.

Group activity

- Review the ladder types and classes used on your site.
- Practice setting up and climbing the ladders brought for class.
- Discuss any questions regarding safe usage tips.
- Ask attendees to inspect ladders in their work areas, and report any defects or problems found.

Resources

[OSHA 29 CFR 1926.1053 - Ladders](#)

Ladder Safety QuickCard™ (OSHA 3246 - 2005) [English, Spanish](#)

[Ladder Safety: Falling Off Ladders Can Kill: Use Them Safely \(OSHA 3625 - 2015\)](#)

[Ladder Safety: Reducing Falls in Construction: Safe Use of Extension Ladders Fact Sheet \(OSHA FS-3660 - 2013\)](#)

[Ladder Safety: Reducing Falls in Construction: Safe Use of Job-made Wooden Ladders Fact Sheet \(OSHA FS-3661 - 2013\)](#)

[State of California Department of Industrial Relations: Portable Ladder Safety – Inspection, Use and Maintenance](#)