



"Because Safety Starts With You!"

Safety Source

► Extension Ladder Safety

Extension ladders are used every day in the workplace. Whether ladders are part of your normal duties or just used occasionally, it's important to know and understand the basics of extension ladder safety.

According to the Bureau of Labor Statistics, there were over 58,000 nonfatal injuries and over 600 fatal accidents involving falls in 2014.

Proper planning, inspection, set up, and use of ladders are paramount in minimizing incidents.



Proper Planning

Select the proper extension ladder for the job and familiarize yourself with it. Extension ladders are labeled with weight capacity and duty rating to help you choose the correct ladder. Make sure you're not sleepy, ill, or taking medication that may impair your abilities. Use only fiberglass or wood ladders when you're working around electricity.

Inspection

Extension ladders should be inspected for defects before each day's use and after any occurrence which could damage the ladder, such as a drop. There should be no broken, damaged, or missing rungs, cleats, or steps. There should be no missing bolts, rivets, or fasteners. Side rails should be solid and undamaged. If any part of the ladder is damaged, it should be repaired or replaced with a new ladder.

Setup

The feet of the extension ladder should be level and positioned solidly on the ground. The ladder should be fitted with a slip-resistant base and be secured to the roof or wall with tie-offs or a ladder stabilizer. Tie-offs can be anchored with bolts or clamps to the roofline or directly to the wall. The ladder should be placed at a 75-degree angle. The base of the ladder should be placed one foot away from the wall for every four feet in height (1:4 ratio). The ladder should extend at least 36 inches above the upper support level if the employee will be leaving or mounting the ladder at that point. Lanyards should be used if available.

Climb

Make sure you're facing the ladder at all times. Your hands, shoes, and the ladder should be dry. Keep your body between the side rails to prevent tipping. Since 50% of all ladder accidents involve carrying items up a ladder, use a tool belt or pull items up with a rope. Maintain three points of contact with the ladder (two hands and one foot or two feet and one hand). Climb slowly, and don't get distracted. Never use the top three rungs of an extension ladder.

Extension ladders are involved in accidents every day, and some of these accidents are fatal. With proper planning, inspection, setup, and use, you can reduce your chance for injury or even death.

These sources provide some guidance, as well as more details, on ladders.

Step Ladder Safety

Step ladders are used every day in workplaces and on jobsites. Whether step ladders are part of your regular work routine or just used occasionally, it's important to understand the basics of step ladder safety. The Consumer Products Safety Commission reports that more than 90,000 people receive emergency room treatment for ladder-related injuries each year. Choosing the proper ladder, conducting inspections, setting them up correctly, and following user safety guidelines will minimize these incidents.

Start with the right ladder

Not every step ladder is right for every task. Make sure you have the right-sized ladder that will provide safe access to the height you need. You should also verify the weight capacity is adequate for both you and any equipment you'll be using. Make sure the ladder has adequate rungs to prevent your feet from slipping and to avoid foot fatigue while working.

Inspect before using

Ladders should be inspected before each day's use and after any drop, fall, or suspected damage has occurred. Check all rungs to be sure they're securely in place. There should be no missing bolts, rivets, or fasteners. Side rails should be solid with no damage. Feet should be securely attached.

Set up

Have a second person help carry large, heavy ladders. Step ladders should be set up on a level surface with enough space to open them fully. Spreader braces should be completely locked. The safety feet should be flat on the ground or floor.

Climbing the step ladder

Center your body on the ladder. Climb facing the ladder, move one step at a time and firmly set one foot before moving the other. Maintain three points of contact whenever possible.

Working on a step ladder

DON'T exceed the maximum load capacity or duty rating of a ladder. Don't permit more than one person

on a single-sided step ladder.

Whenever possible, have an assistant hand your tools or equipment to you after you've climbed the ladder.



DON'T over-reach, lean to one side, or try to move a ladder while working on it. Climb down and reposition the ladder to keep your work directly in front of you.



To avoid losing your balance, don't use excessive force to push or pull materials.



DON'T stand above the second step from the top of the ladder.



For more information:
<https://www.osha.gov/Publications/OSHA3662.pdf>
www.wernerco.com/us/support/training
<https://www.americanladderinstitute.org/page/Stepladder>

Ladder Training & Awareness

Training

Provide Proper training to all individuals who will be using ladders.

- Educate users on ladder safety guidelines, best practices, and potential hazards.
- Instruct users to read and follow all the safety information labels on the ladder.
- Promote a culture of safety awareness where workers actively identify and report ladder safety concerns.

Identification of Factors Known to Contribute to Falls

Avoid factors that contribute to falls from ladders: haste or sudden movement, overreaching, lack of attention, improper climbing posture such as standing too high or straddling the ladder and carrying objects and not maintaining three points of contact.

- Preplan - Inspect and know the hazards within your work environment.
- Choose the correct ladder for the job – a self-supporting stepladder or a non-self-supporting leaning, single or extension ladder.

Ladder Setup

Ensure proper ladder setup with placement on a firm level surface, and use accessories (e.g. levelers, stabilizers, V-rung, etc.) to accommodate any irregular setup conditions.

- Secure your ladder where possible by tying off, blocking, bracing, or having an assistant hold the ladder.
- Never attempt to move or reposition any ladder while it is occupied.
- Stepladders:
 1. Fully open and lock spreaders.
 2. Support ALL FOUR feet – no elevated feet.
- Leaning ladders:
 1. Support at all four corners – both feet and both top rails on firm surfaces.
 - Do not rest the ladder against the top rung.
 2. Position at a 75° angle to avoid slide out:
 - Place your toes against the bottom of the ladder side rails and stand erect.
 - Adjust the ladder angle so you can grasp lower section rails at shoulder level with arms straight.
 - Only move or reposition a self-supporting extension ladder after retraction and from the ground.
- Never adjust the ladder position or extended length from above.

Ladder Training & Awareness (continued)

Ladder Climbing

Climb slowly and deliberately.

- Follow the three points of contact rule - face the ladder and use both hands while climbing up and down.
- Keep both hands free for climbing. Use a towline, tool belt, or an assistant to lift tools and equipment up to the work area.

Maintaining Balance While Working



Maintain your balance while working and avoid sudden movements.

- Lean into or hold onto the ladder to maintain three points of contact.
- Keep the center of your stomach between the ladder side rails - do not over reach or lean so that you do not fall off the ladder.
- Wear clean slip resistant work shoes.
- Stepladders:
 1. Do not stand on the top step, top cap or straddle the top.
 2. Do not access another surface unless it has been secured from side movement.
- Leaning single or extension ladders:
 1. Do not stand on the top three rungs.

Ladder Transport

Properly secure your ladder during transport to avoid excessive wear and loading at the vehicle support points.

Ladder Storage

Store ladders where they are protected from unsafe materials, impact, or corrosion damage.

