

Gravity Always Wins

Before employees use a portable ladder, they must know how to properly inspect it for damage and how to safely use it. Unsafe ladder use might subject the employer to an OSHA citation, but more importantly, it might subject the employee to the law of gravity.

OSHA doesn't require fall protection on portable ladders, partly because a suitable overhead anchor point usually isn't available. Employees must therefore rely on safe work practices to prevent falls.

The most common causes of falls include using an extension ladder at the wrong angle, placing a ladder on an unstable surface, and overreaching to the side. The National Institute for Occupational Safety and Health found that about 40 percent of ladder-related falls occur when the base of an extension ladder slides out because it was too far from the wall. The American Ladder Institute noted that tips most commonly occur due to unstable ground or because the employee reached too far to the side.

Employees can easily avoid these hazards with training and diligence, but carelessness could give them an unpleasant lesson on gravity.

Safe practices

Employees must maintain three points of contact while climbing or descending a ladder, but they can use both hands to perform tasks upon reaching the working height. Even so, whenever possible, they should work with one hand and maintain a grip on the ladder with the other. If a task requires reaching to one side, employees should climb down and move the ladder closer to the task area.

Employees are not generally required to tie off a portable extension ladder. However, the regulation at §1910.23(c)(4) requires using ladders only on stable and level surfaces "unless they are secured or stabilized to prevent accidental displacement." For example, if the surface is soft or uneven (and that condition is unavoidable), employees must secure the ladder. This could help prevent a fall if the ladder feet shift and could also prevent the base from sliding if the setup angle was not ideal.

The most common ladder-related OSHA citation is failing to extend the rails at least three feet above an upper landing surface, as required under §1910.23(c)(11). Proper extension above the landing surface helps employees firmly grasp the ladder when climbing down. Potentially related to this (and to unstable ground), the California Department of Industrial Relations reported that twice as many falls occur when descending a ladder as compared to climbing.

Guarding the work area

OSHA doesn't require warning cones or signs around ladders if the working area is visible from a safe distance. However, §1910.23(c)(7) states that if employees use ladders in passageways, doorways, driveways, or similar areas, the ladder must either be secured against displacement or guarded by traffic cones, caution tape, or similar means.

Since portable ladders are often used near pedestrian or vehicle traffic, employees may need to place cones or other warnings around the work area. Maintaining a clear zone around the ladder can also help prevent injuries if the employee on the ladder accidentally drops a tool or other object. Gravity applies to objects as well!

Training employees

Employees who use portable ladders should receive training on properly inspecting and using them, including proper setup and stability.

Employees must inspect portable ladders before the first use on each shift and remove unsafe ladders from service. However, they can't properly inspect a ladder if they can't recognize a problem, so they need training. If OSHA asks employees to describe their pre-use inspection procedures, they should be able to answer confidently.

Before OSHA published revisions in 2016, the regulation included a list of items to check when inspecting ladders. However, OSHA removed the list because it could have included unnecessary items and potentially missed items that should be checked.

For example, after a tip-over, the list required looking for dents or bends in the side rails and rungs, checking hardware connections, and examining rivets. However, OSHA's list did not require checking the ladder footing, which might have been the problem. OSHA therefore adopted performance-based language, allowing employers to determine the scope of each inspection based on variables like the ladder type and work area.

Pre-use inspections might include ensuring the footing is firm and stable, checking the spreader or locking devices, and looking for any missing or damaged components. If a ladder tips over, the inspection might focus on whether footing problems caused the tip-over and verifying that rungs are still firmly attached. Employers should tailor inspections for the situation.

OSHA doesn't require documenting ladder inspections, but providing a checklist could serve as a reminder and help ensure a comprehensive inspection. A checklist could also help demonstrate to OSHA that the employer requires and enforces ladder inspections. If OSHA visits the facility, they might ask employees when they perform ladder inspections and what they look for. If employees cannot answer those questions (or if the compliance officer sees a defective ladder in use), OSHA will likely issue a citation.

By taking the time to conduct thorough inspections, ensuring proper setup, and refraining from unsafe behaviors, employees can significantly reduce the risk of fall-related (or gravity-related!) injuries.