

Preventing Falls from Extension Ladders

Ladder falls not limited to construction sites

“I want to remind all employers to regularly demonstrate, train and instruct employees on how to use and work safely on a ladder, especially non-English speaking, new or young workers. Don’t assume that everyone already knows how to select, set up, climb and work on a ladder.”

Chris Gompers,
IWIF Loss Control Consultant

Ladder falls are not confined to the construction industry alone. In fact, the exposure exists in a variety of industries, including roofing, HVAC, painting, plumbing, tree trimming, sign installation, and many types of maintenance work. **Note the following incidents from IWIF’s own case files.**

Earlier this year, a 38-year-old male carpenter was working up on an extension ladder when the ladder slipped, causing the man to fall nearly 15 feet to the ground. He survived the fall, but suffered two broken arms as a result.

In another incident, a 51-year-old sheet metal worker sustained chest and neck injuries as well as multiple facial and rib fractures after slipping and falling from an extension ladder while attempting to carry ductwork up to a ceiling work platform.

Ladder falls are among the costliest of claims

Falls from stepladders, straight ladders and extension ladders are one of the leading causes of occupational injuries and even fatalities, according to the U.S. Occupational Safety & Health Administration (OSHA). Serious injury or even death can occur from a fall only a few feet high. These fall injuries account for nearly 20% of all slip, trip and fall workers’ compensation losses annually, according to OSHA.

In fact, the average claim cost for a ladder fall is more than twice that of all other fall claims, says the organization. And IWIF’s statistics bear this out: For the last three years for which statistics are available (2007–2009), IWIF claims figures show we handled some 608 lost-time injuries caused by ladder falls. These injuries cost IWIF and its policyholders more than \$24 million, including both medical costs and indemnity payments. The average claim cost involving a ladder fall is \$39,558.

The reasons for ladder accidents

A recent study by the National Institute for Occupational Safety and Health (NIOSH) classified ladder falls into three categories:

1. Accidents in which the wrong ladder was used to do a job or where a ladder was the wrong tool for the job in the first place.
2. Accidents in which the ladder was not properly used, or proper Personal Protective Equipment was not used along with the ladder.
3. Accidents in which the ladder failed due to deterioration.

Choosing the right ladder for the job

Portable ladders are one of the most commonly used pieces of equipment in many industries. There are two basic types of portable ladders: (1) Self-supporting ladders (or step ladders); and (2) Non-self-supporting ladders (straight or extension ladders).

Chris Gompers, IWIF Loss Control Consultant, offers the following information when choosing the proper extension ladder for the task at hand:

First, select a heavy duty extension ladder with these weight/load ratings:

Extension Ladder Type	Load Rating (Pounds)
I - Heavy Duty	250 lbs.
IA - Extra Heavy Duty	300 lbs.
IAA - Special Duty	375 lbs.

Important: the load ratings above include both the weight of the worker and the weight of any tools and materials to be carried up on the ladder.

Second, consider the style of ladder to be used, along with the material it is made of. If the ladder will be used outside for roofing, gutter work, second story painting, etc., a straight (or extension) ladder is appropriate.

Extension ladders are made of wood, fiberglass, or aluminum. Wood is strong, heavy, and electrically non-conductive, but requires close inspection and regular maintenance, and is prone to rot if stored outdoors. Fiberglass is non-conductive, heavy, and can be stored outside. Aluminum can be stored outside and is light, but it is electrically conductive, so it should not be used anywhere near overhead power lines.

This information does not preclude other precautions related to ladder safety, such as training, PPE, and regular inspection.

For more information on ladder safety, contact your IWIF Loss Control consultant or contact losscontrol@iwif.com.



Basic safety tips for using extension/straight ladders

✗ Do not apply more weight (combined worker's weight plus materials' weight) on the ladder than it is designed to support.

✗ Avoid electrical hazards! Look for overhead power lines before using a ladder outdoors. NEVER USE A METAL LADDER NEAR POWER LINES or near exposed energized electrical equipment. **LOOK UP and LIVE!**

✗ Do not use a step ladder as a straight ladder or in a partially closed position.

✗ Do not stand on the top three rungs of a straight or extension ladder.

✗ Do not erect a ladder on top of anything else such as boxes, concrete blocks, or any other unstable base in order to obtain additional height. Use ladder feet levelers or scrape out a shallow trench under the high-side ladder foot.

✗ Do not move or shift a ladder while on it. Don't overreach on a ladder; climb down and move the ladder closer instead.

✗ Do not attempt to move a fully extended ladder as it can be very top-heavy. Lower it before moving. Do not drop or allow the ladder to fall after use. Retract the ladder and lower it safely to the ground.

Do's

Don'ts

Continue the learning online.

Check out iwif.com for this tip sheet in Spanish, as well as a tip sheet on step ladder safety tips.

Overreaching is one leading cause of falls from ladders



This Safety Tip Sheet was created by IWIF's Loss Control and Communications departments. These safety tips are advisory only and may not address all hazards or conditions that may exist in your particular workplace. IWIF assumes no liability for identification of unsafe conditions or hazards. Safety and health remain your responsibility.

SAFETY SAVES With IWIF

✓ Before each use, inspect ladders carefully for damage. Ladders must also be free of any slippery substance on the rungs and feet. If the ladder is damaged, it must be removed from service and tagged until repaired, or discarded altogether.

✓ If the job requires using ladders, instruct all new employees in how to safely use an extension ladder, and then have them demonstrate the correct use of the ladder.

✓ Use only ladders that comply with OSHA standards. Consult 29 CFR 1926.1053(a)(1) for more information on OSHA ladder safety regulations. Read and follow all manufacturers' warning labels on the ladder.

✓ Set up the ladder only on a stable and level surface.

✓ Be sure that all rung locks on an extension ladder are properly engaged.

✓ The proper angle for setting up an extension ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface. The ladder must extend at least 3 feet above the point of support.

✓ Secure side rails at the top to a rigid support, and use a grab device when a 3-foot extension is not possible.

✓ Always maintain a 3-point contact (two hands and a foot; two feet and one hand) on the ladder when climbing. Keep your body centered on the steps and always face the ladder while climbing or descending.

✓ A ladder placed in any location where it can be dislodged by other work activities must be secured to prevent displacement, or a barricade must be erected to keep traffic away from the ladder.