

# Climb Your Way to Safe Ladder Use



## What's at Stake?

Of all occupational injuries, falls are the second leading cause of death next to highway crashes. Falls remain a leading cause of unintentional injury mortality and over 40% of fatal falls in the last decade have involved a ladder. At work, approximately 20% of fall injuries involve ladders and among construction workers, an estimated 81% of fall injuries treated in emergency departments involve a ladder.

## What's the Danger?

Ladders are such a common sight at work and at home that it's easy to get too comfortable with their use. This comfort often leads to a slack in safe use and set up and too often ends up in someone being seriously hurt. Overloaded ladders can break and collapse. Improper set up can cause a ladder to slip or tip, or even lead to shock if the ladder is too close to power lines.

## How to Protect Yourself

### Capacity and Balance

Losing one's balance accounts for 18% of ladder falls that would be less likely to occur if the ladder itself is stable.

- Know the capacity limits of the ladder you're on and don't exceed that limit. Remember to include your weight and the weight of any tools or equipment on you.
- Maintaining three points of contact while you are climbing up or down the ladder and while on the ladder can help prevent loss of balance.

### The Right Angle

40% of ladder falls resulted from the ladder itself moving. The large majority of these cases involve the bottom of the ladder moving.

- Non-self-supporting ladders, which must lean against a wall or other support, must be positioned at such an angle that the horizontal distance

from the top support to the foot of the ladder is about  $\frac{1}{4}$  the working length of the ladder. In the case of job-made wooden ladders (when and if allowed), that angle should equal about  $\frac{1}{8}$  the working length.

- Secure the top and bottom of the ladder if possible, or have someone hold the ladder steady while you climb or are on the ladder, to prevent it from slipping.

## **Rungs**

24% were attributed to slips on the rungs of the ladder.

- Inspect the steps to make sure they are free of any slippery material and wear appropriate footwear along with choosing ladders with anti-slip surfaces on the rungs.
- Ladders are to be kept free of oil, grease, wet paint, and other slipping hazards.
- Ladder rungs, cleats, or steps must be parallel, level, and uniformly spaced.

## **Other Precautions**

- Inspect all ladders before you use them.
- Never use a ladder for any purpose other than the one for which it was designed.
- The area around the top and bottom of ladder must be kept clear.
- Take precautions, such as blocking off the area around the bottom of the ladder, to keep pedestrian and vehicle traffic a safe distance away.
- Metal ladders must never be used around or while working with electricity.
- Get off the ladder before you move it – don't try to "bunny hop", even if it's just a few inches.
- Carry tools in a tool belt or use a hoist – don't carry them in your hands.
- Face the ladder when climbing and descending and never overreach while on a ladder. To prevent this, keep your body within the side-rails.
- The spreader or locking device on foldout or stepladders must be in an open and locked position when in use.

## **Final Word**

Resist the urge to become a safety slacker when it comes to ladder use; and follow procedures for safe set-up and use.