

Preventing Ladder Falls - *Construction Safety*

Why construction falls?

Here are a few basic facts about falls in construction:

- Every day, four construction workers die on the job.
- Falls are the most common cause of fatal injuries to construction workers.
- The consequences of a fall affect not only the worker, but also his or her family and community.
- Construction falls can be prevented. Contractors and foreman can do many things to organize the worksite to be safer for their employees. But workers themselves can also make some inexpensive, simple changes to the way they work that can save their lives.
- Ladders are one of the most common pieces of equipment on a construction site. But that doesn't mean they are safe. There are construction workers who are injured or killed falling from a height every day. Using ladders more safely is one way to start preventing falls at your work site.



Set an example at work

Your co-workers can learn a lot from you. At first, you might be the only one who is concerned with safety at your worksite. But over time, other workers will see that the foreman will give you the time you need to be safe. They will see how many little things add up to big effects on safety. And they will see how they, too, can help to make your worksite safer.

So, set an example. Don't worry about being the first—they'll thank you for it later.

How can I prevent a fall from a ladder?

There are many ways you can prevent a fall from a ladder—here are just three suggestions to get you started.

- **Choose the right ladder for the job.**
- **Tie the top and bottom of the ladder to fixed points when necessary.**
- **Don't carry tools or other materials in-hand while climbing the ladder.**

1. Choose the right ladder for the job.

- First you need to make sure that a ladder is the best equipment for what you need to do. Would scaffolding or a mechanical lift be better?
- Many times, the ladder is the only physical support you have while you are working. If it fails, you can fall. That's why it is so important to find the right ladder when you do need to use one. The three main types of ladders—step ladders, straight ladders, and extension ladders—are used in different situations for different tasks.
- Before you start using a ladder, ask yourself two questions.
- **Is the ladder long enough?** It should be long enough for you to set it at a stable angle and still extend at the top to give you something to hold on to when you get

on the ladder to descend. Setting the ladder at the right angle helps you keep your balance on the ladder. It also helps keep the ladder from falling backwards.

- Make sure the ladder extends 3 feet (3 rungs; 0.9 meters) above the surface you will be working on.
 - Make sure the ladder is placed at a stable angle. For every four feet (1.2 m) high the ladder is, the base should be 1 foot (.3 m) out from the wall
 - For example, if you will be working on a 10 foot-high roof (3 m), you need a ladder that is at least 14 feet (4.25 m) long. The base should be 2 ½ feet (.75 m) from the wall.
- **Is the ladder in good working condition?** It shouldn't be missing pieces or be cracked or otherwise damaged. Check the duty rating on extension ladders – is it high enough for the weight you will be putting on it? Longer ladders don't always have higher duty ratings, so be sure to check. In construction, the most common ratings are:
- Heavy Duty (I) supports up to 250 pounds (113 kg).
 - Extra heavy duty (IA) supports up to 300 pounds (136 kg).
 - Special duty (IAA) supports up to 375 pounds (170 kg).

2. Tie the top and bottom of the ladder to fixed points when necessary: if it doesn't extend 3' above the landing, on slippery surfaces, and where it could be displaced by work activities or traffic.

- Tie both sides of the top of the ladder to a fixed point on the roof or other high surface near where you are working. The bottom should be tied to a fixed point on the ground. Securing the ladder in this way prevents the ladder from sliding side-to-side or falling backwards and prevents the base from sliding.
- Tying the ladder off at the beginning of the day and untying it at the end will only take you about 5 minutes. It can make all the difference for your safety. If you need to move the ladder around, allow extra time for this important step, or consider using something else, such as a scaffold.

3. Don't carry tools or other materials in-hand while climbing the ladder.

- Take precautions when you are going up or down a ladder. Instead of carrying tools, boards, or other materials in your hands, use a tool belt, install a rope and pulley system, or tie a rope around your materials and pull them up once you have reached the work surface. Ask for help if you need to use more than one hand to pull them up.
- Carrying tools or anything else in your hands as you climb the ladder can throw you off balance. When you climb a ladder, always use at least one hand to grasp the ladder when going up or down.

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