UCI Environmental Health & Safety

Safety Moment

Choosing and Using Ladders

When you're in a hurry to reach a high place, it's tempting to climb on a chair, table, or anything handy to get there. But is it worth the risk? This year, more than 30,000 people will be disabled by falls involving ladders and ladder substitutes. A major cause of ladder injuries is improper set-up. The good news is that most ladder accidents are preventable. All it takes is the right ladder in a good working condition along with solid placement of that ladder before climbing on it.

Choosing the right ladder for the job

There are four key elements you should consider when selecting a ladder:

- **Style** Which kind of ladder is right for the job?
- Step, extension, multi-purpose, etc.
- **Size** How high do you need to reach?
- What size ladder to buy?
- **Duty Rating**
- How much weight will be on the ladder?
- **Material** (Fiberglass, Aluminum, Wood) Where will the ladder be used?

If you work around electrical wires, then do not choose a metal ladder. A number of accidents occur each year because power lines and equipment wires contact metal ladders. Use a dry wooden or nonconductive fiberglass ladder for this kind of work.

Inspect the Ladder Before You Use It

Before you use any ladder, inspect it. Be sure that the spreaders can be locked in place when open. Also, be sure that straight ladders have safety feet. Metal ladders, either straight or step, should have rubber or plastic feet as well as step coverings. Be certain that the ladders steps are wide enough to spread your feet for balance.

Check for loose or bent rungs. A rung that revolves may seem solid, but if it twists unexpectedly under your weight, you could lose your balance and fall. Look for cracked side rails on wooden or plastic ladders and for bent parts on metal ladders. Replace any missing parts and tighten loose hardware, but don't try to repair major structural damage. Instead, invest in a new ladder.

Safety Tip: When you select a ladder, make sure it is strong enough and long enough for the job. Ladders are labeled with duty ratings. Type IAA, Industrial, 375 Lbs., Type IA, Industrial, 300 Lbs., Type I, Industrial, 250 Lbs., Type II Commercial, 225 Lbs. (**Not recommended at UCI**), Type III, Household, 200 Lbs. (**Not recommended at UCI)**. Check the ladder's rating and do not exceed the limits.

Set Up Your Ladder Carefully

Place your ladder on a firm, level surface with its feet parallel to the wall it is resting against. If you have to use the ladder in a busy area, use a barricade to prevent any collisions and lock any nearby door that opens toward you.

Use the four-to-one ladder rule: Set the base of your ladder one foot away from the wall for every four feet of ladder height. This ratio is important because if the angle is too steep you can fall backward. If the angle is too horizontal the ladder can slip out from under you.

Climb Cautiously

When you climb up or down a ladder, be sure to face it. Hold on to the side rails with both hands. Carry only necessary tools on your belt use a rope to raise heavier equipment. If you use power equipment, make sure the ladder is securely tied.

One of the most dangerous ladder hazards is to overreach. Use the "belt buckle" rule: Always keep your body centered between the rails.

Allow only one person on a ladder at a time. Wear shoes with nonskid soles, and make sure your shoes and hands are clean and dry. Remember; never use the top two rungs of a ladder.

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I have reviewed and understand the contents of this Safety Moment document.

Name (print)	UCInetID	Signature	Date

Contact UCI EH&S for questions and guidance: (949)824-6200