The 10 Rungs of Ladder Safety

The old adage still holds true: It’s not the fall that hurts, it’s the sudden stop!

Ladders and step stools are very common tools used to perform a variety of jobs. In many instances, we take their use for granted and are generally only concerned if it is tall enough to reach the intended item or complete the task. But before you take your next journey up (or down) a ladder, remember there are 10 rungs to ladder safety:

Rung 1 – Get the right ladder for the job
There is a lot to consider when choosing the right ladder, including capacity ratings and length requirements. The American National Standards Institute (ANSI) rating sticker should be on every ladder you use, stating the ladder use and weight restrictions.
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Be sure to use a ladder with adequate capacity ratings.

<table>
<thead>
<tr>
<th>Ladder Type</th>
<th>Duty/Capacity Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1AA</td>
<td>375 pounds</td>
<td>Extra heavy-duty industrial ladder</td>
</tr>
<tr>
<td>1A</td>
<td>300 pounds</td>
<td>Heavy-duty industrial ladder</td>
</tr>
<tr>
<td>1</td>
<td>250 pounds</td>
<td>Heavy-duty industrial ladder</td>
</tr>
<tr>
<td>2</td>
<td>225 pounds</td>
<td>Medium-duty commercial ladder</td>
</tr>
<tr>
<td>3</td>
<td>200 pounds</td>
<td>Light-duty household ladder</td>
</tr>
</tbody>
</table>

Proper maximum lengths:

<table>
<thead>
<tr>
<th>Ladder Type</th>
<th>Maximum Length</th>
<th>Special Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1: Industrial stepladders</td>
<td>3’-20’</td>
<td>The minimum width between top inside rails is 11½ inches. From top to bottom, the side rails must spread at least one inch for each foot of length. Must have a metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in an open position.</td>
</tr>
<tr>
<td>Type 2: Commercial stepladder</td>
<td>3’-12’</td>
<td>Same as above.</td>
</tr>
<tr>
<td>Type 3: Household stepladder</td>
<td>3’-6’</td>
<td>Same as above.</td>
</tr>
<tr>
<td>Rung ladder</td>
<td>30’</td>
<td>None.</td>
</tr>
<tr>
<td>Two-section rung ladder (extension ladder)</td>
<td>60’</td>
<td>Ladder rails must fit into each other. Upper section can be raised/lowered.</td>
</tr>
</tbody>
</table>

A simple tip to ensure proper ladder set-up:
Place your feet at the base of the ladder and extend your arms straight out in front of you. If your fingertips just touch the ladder, you have the proper pitch.

Note: Stepladders are also known as A-frame ladders.

Other key things to keep in mind:
- No ladder should be used to gain access to a roof unless the top of the ladder extends at least three feet above the point of support (this equals three rungs), at eave, gutter or roofline.
- Never use an A-frame ladder as an extension ladder or use in a folded, leaning position.
- The A-frame ladder should be utilized with the support hardware fully extended, open and locked into place.
- If set up properly and on a level surface, the A-frame ladder is perfect for the majority of elevated work tasks that need to be completed.
Rung 2 – Handle the ladder properly
Ideally, two people should set up a ladder together; however, that isn’t always possible.
If you have to set up an extension ladder by yourself, follow these steps:
  - Lay the bottom end of the ladder (with safety feet) on the ground up against the wall.
  - Lift the end farthest away from the wall over your head and walk to wall.
  - Pull the base out, securing a 4:1 ratio as discussed below in rung 5.

Rung 3 – Inspect before each use
Consider items such as:
  - Is the ladder in good general condition?
  - Are there any areas that are cracked or broken, such as rungs or rails?
  - Are there any missing screws or bolts?
  - Are there any loose pieces?

Never use a damaged ladder! If one is found, it should be immediately removed from service, tagged to remind others not to use until repairs can be made (if minor) or discarded. Never leave a broken ladder in an area where someone else may use it.

Rung 4 – Look for hazards
When handling a ladder, always be aware of your surroundings. Be careful not to swing the ladder, which can strike fixed objects. Be aware of overhead obstacles like lights, electrical wires and signs.

Rung 5 – The 4:1 pitch for extension ladders
Extension ladders should be used at a 4:1 pitch, meaning for every 4 feet in height, the bottom of the ladder should be 1 foot away from the structure. For example, a 12-foot ladder should have base 3 feet from the wall, a 16-foot ladder should have base 4 feet from the wall and a 20-foot ladder should have base 5 feet from the wall.

A simple tip to ensure proper ladder set-up:
Place your feet at the base of the ladder and extend your arms straight out in front of you. If your fingertips just touch the ladder, you have the proper pitch.
Rung 6 – Keep inside the rails (don’t overextend yourself)
Keep your body inside the rails, even while performing work tasks. If you don’t, your movement shifts your center of gravity and can result in a tip-over. A general rule of thumb is to never let your belt buckle reach outside the rungs.

There are several devices available to provide stability on extension ladders. These devices are commonly known as ladder stabilizers, roof hooks, cable hooks, V-rungs (leaning against poles) and pole straps. They provide stability against the surface they are resting against with the intent of reducing sliding and slipping.

Rung 7 – Ensure three-point contact
Do not climb a ladder carrying tools, equipment or other items, as your hands (and feet) should be free of impediments. This will also allow you to keep “three-point contact” (one hand and two feet, or two hands and one foot) while climbing. Lastly, ensure your feet and hands are free of mud, grease and snow.

Rung 8 – Start on a solid, level surface
Remember to place the ladder on a solid, dry, flat surface. If you are on uneven surfaces, you can level things with ladder legs/ladder levelers. These devices attach directly to extension ladders (not A-frame ladders). Most ladder manufacturers will sell these as component parts with appropriate hardware for quick attachment. Additionally, always use the slip resistant shoes on the ladder to prevent it from kicking out. If you can’t secure or tie off your ladder, have a spotter on the ground to help secure you.

Rung 9 – Avoid high traffic areas
Try not to place ladders in high traffic areas to reduce the likelihood of someone running into or knocking your ladder over. If you have to position the ladder in a doorway, lock the doors. If this isn’t feasible, place cones, signs or caution tape as reminders, or post someone as a safety watch.

Rung 10 – Train yourself and employees
Don’t assume everyone knows how to safely use a ladder — properly train employees on its use. Make sure to read all the warning labels and decals on a ladder, as many of them have helpful tips, capacity ratings and more. A great free resource on ladder safety training can be found at the American Ladder Institute’s Ladder Safety Training Web page: www.LadderSafetyTraining.org/