Toolbox Talk: Ladder Safety

Choosing the Right Ladder

Always choose the correct ladder for the job or task to be performed.

There are many types of ladders, ranging from simple wooden job-built ladders to specialty ladders used for specific jobs. Ladders may be made of timber, aluminum, or fiberglass. There are three main types of ladders used in the construction industry: 1) extension, 2) step, and 3) multi-purpose.

Keep the following in mind when choosing the right ladder for your job:

- For indoor use, stepladders or multi-purpose ladders are usually recommended. For outdoor work, taller stepladders, multi-purpose, or extension ladders are generally more appropriate.
- Do not use aluminum ladders when working around electricity. Chose a ladder made out of non-conductive material for electrical work, such as when working near overhead power lines.
- Make sure that the ladder is the proper length to do the job safely.
- Chose a ladder that is designed for how you intend to use it. For example, do not use step ladders in a folded and leaned position in place of a straight ladder.
- Chose a ladder that is capable of supporting your weight and the weight of any materials you will be using. See the chart below.

Type	Weight Rating	Duty Rating
1-AA	375 pounds	Super Heavy Duty
1-A	300 pounds	Extra Heavy Duty
1	250 pounds	Heavy Duty Industrial
2	225 pounds	Medium Duty Commercial
3	200 pounds	Light Duty Household

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Discussion leader duties:
Obtain a ladder that you or an employee can use during the discussion to demonstrate key points.

What this Toolbox Talk covers:
This toolbox talk reviews how to choose the correct type of ladder.

Discussion notes:
Emphasize the importance of choosing the right ladder for the job. Note that 129 employees were killed in 2005 due to falls from ladders.

Review Questions:

1) What are the three main types of ladders?
Answer: Extension, step, and multi-purpose.

2) What ladders are good to use around electricity?
Answer: Fiberglass.

3) When are aluminum ladders not appropriate for use?
Answer: When working around electricity.

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Inspect Ladders Carefully!

All ladders must be inspected for defects and/or damage periodically by a competent person, and after any occurrence that could affect their safe use.

Ladder users must inspect ladders before each use, and defective and/or damaged ladders must either be immediately marked in a manner that readily identifies them as defective/damaged, or be tagged with a "Do Not Use" tag or tag containing similar language. Defective and/or damaged ladders must not be used and must be removed from service until repaired.

Look for warning signs. Check all ladder components for signs of wear, corrosion and structural failure before each use. These inspections should include:

- ❑ Rungs - Check for broken split, cracked, corroded or missing rungs.
- ❑ Side Rails - Check for broken, split, cracked, corroded or missing side rails.
- ❑ Cracks - Check carefully for cracks; they are hard to see. Cracks weaken ladders.
- ❑ Excessive Bends - Check for rungs or side rails with excessive bends. Bent areas are greatly weakened and may fail during use.
- ❑ Hardware - Check for ladders with loose, corroded, or weakened fasteners and hardware.
- ❑ Feet - Check ladders for missing or damaged feet. Ladder feet may have both non-skid pads for use on hard surfaces (concrete), and metal feet for soft surfaces (dirt).
- ❑ Coatings or Paint - Check for paint or other coating hiding defects. Wood ladders shall not be painted or coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a side rail. When other types of ladders are painted it is very hard for the user to observe defects/damage such as cracks or dents and painted areas must be inspected carefully for hidden damage.
- ❑ Oil, grease, and other slipping hazards - Inspect ladders for oil, grease, moisture or other slippery materials before use and clean as necessary.
- ❑ Capacity - Check the capacity label and make sure the ladder has sufficient capacity to hold you and everything you are wearing/carrying.

Discussion leader duties:
Obtain a ladder and "Do Not Use" tags that you or an employee can use during the discussion to demonstrate key points.

What this Toolbox Talk covers:
This toolbox talk covers pre-use inspection of ladders.

Discussion notes:
Discuss the various negative outcomes that would result from failure to inspect ladders properly before use.

Review Questions: True or False

1) It isn't necessary to inspect a ladder before use because they get inspected quarterly by the ladder competent person.
FALSE: Ladders must be inspected before each use and periodically by the competent person.

2) It is OK to use a damaged ladder as long as you are not going very high.
FALSE: Even "minor" falls can result in very serious injury.

3) Ladders should not be painted because the paint can cover early signs of structural failure.
TRUE: Paint and other opaque coatings can hide defects and damage putting the user at risk of serious injury.

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Toolbox Talk: Ladder Safety

Do's and Don'ts of Using a Ladder

As simple as it may seem to use a ladder, many disabling injuries occur each year due to improper use of ladders. Knowing the "Do's" and "Don'ts" can help you avoid becoming another victim of falling from a ladder.

Do…look overhead before placing a ladder, with special attention to power lines and other electrical hazards.
Don't …assume the area above the ladder is clear of hazards.

Do…use ladders made of non-conductive material when working around power lines or other electrical hazards.
Don't …use aluminum ladders when working around electricity.

Do…set up the ladder on the ground, floor, or other level, stable surface.
Don't…place a ladder on slippery, cluttered, or unstable surfaces such as boxes, carts, tables, etc.

Do…take your time and climb one rung at a time while using the "3 Point Contact" rule.
Don't…hurry up a ladder to complete a task.

Do…climb down and move the ladder to get proper access to the work area. Keep your belt buckle between the side rails.
Don't…overreach beyond the side rails to conduct work.

Do…climb all ladders facing the rungs.
Don't…turn your back to the ladder at any time.

Do…use a bucket or other means to lift objects to the work area.
Don't…carry heavy objects or tools up the ladder.

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Discussion leader duties:
Obtain a ladder that you or an employee can use during the discussion to demonstrate key points.

What this Toolbox Talk covers:
This toolbox talk covers several "Do's" and "Don'ts" of ladder use.

Discussion notes:
Discuss the various negative outcomes that would result from each example of "Don't" and why it is important to "Do" the right thing.

Review Questions: True or False

1) It is OK to turn your back on a ladder when carrying heavy objects.
FALSE: Never turn your back OR carry heavy objects.

2) If needed, a ladder can be placed on a small table to get higher.
FALSE: Never place a ladder on any unstable surface.

3) Climbing a ladder one rung at time is a waste of time.
FALSE: Safety is never a waste of time. Climbing a ladder one rung at a time can avoid costly injuries and time away from work.

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Set Up and Use of a Ladder

A major cause of falls from ladders is improper set-up. Many accidents can be avoided with common sense and good work practices. Using proper set-up techniques will give your ladder maximum stability and help ensure your safety.

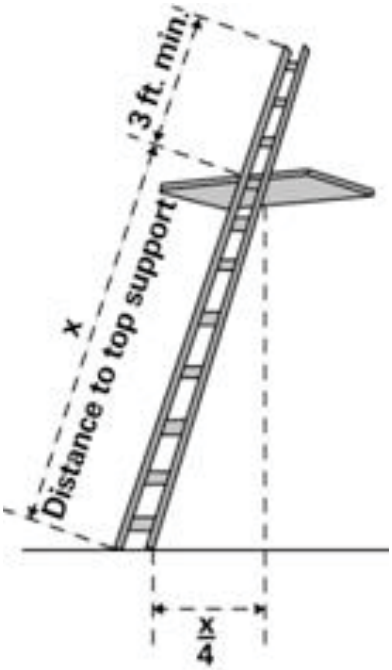
PREPARING TO USE A LADDER

Your first step is to rid the area of hazards.

- Look above for any overhead wires or obstructions.
- Use non-conductive ladders for all electrical work.
- Clear any clutter from the area around the base of the ladder.
- Block off the area around the ladder so people and equipment won't knock you off the ladder.
- If you're working close to a corner, put a sign to warn people of your presence.
- If there's a door nearby, lock it, block it off, or station someone to watch it for you.
- Before you use a ladder, check its rating. And be sure not to subject it to a load greater than its rated capacity.

USE OF A LADDER

- Position a ladder carefully to prevent slipping.
- Where slipping is likely, tie off or have someone hold the ladder in position.
- Do not use a ladder for anything other than its stated purpose.
- Do not use boxes, barrels, or other objects to raise a ladder higher.
- Do not place ladders in front of doors opening toward the ladder unless the door is blocked, locked, or guarded.
- Position the base of an extension or straight ladder one foot away from the wall for every four feet of the ladder's length from the support point to the surface (see figure).
- Before climbing onto a roof using an extension ladder, be sure the ladder extends three feet beyond the roof line (see figure)
- Never overextend an extension ladder.
- Read and follow all instructions on the ladder.



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Discussion leader duties:
Obtain a ladder that you or an employee can use during the discussion to demonstrate key points.

What this Toolbox Talk covers:
This toolbox talk covers the setup and use of ladders.

Review Questions: True or False

1) If the ladder's length from the ground to the top support point is 20 feet, the base should be five feet from the building.
TRUE: The base should be one foot away from the wall for every four feet of the ladder's length from the ground to the support point.

2) If you're using a ladder to climb onto a roof, the ladder should extend one foot past the roof line.
FALSE: The ladder should extend three feet beyond the roof line.

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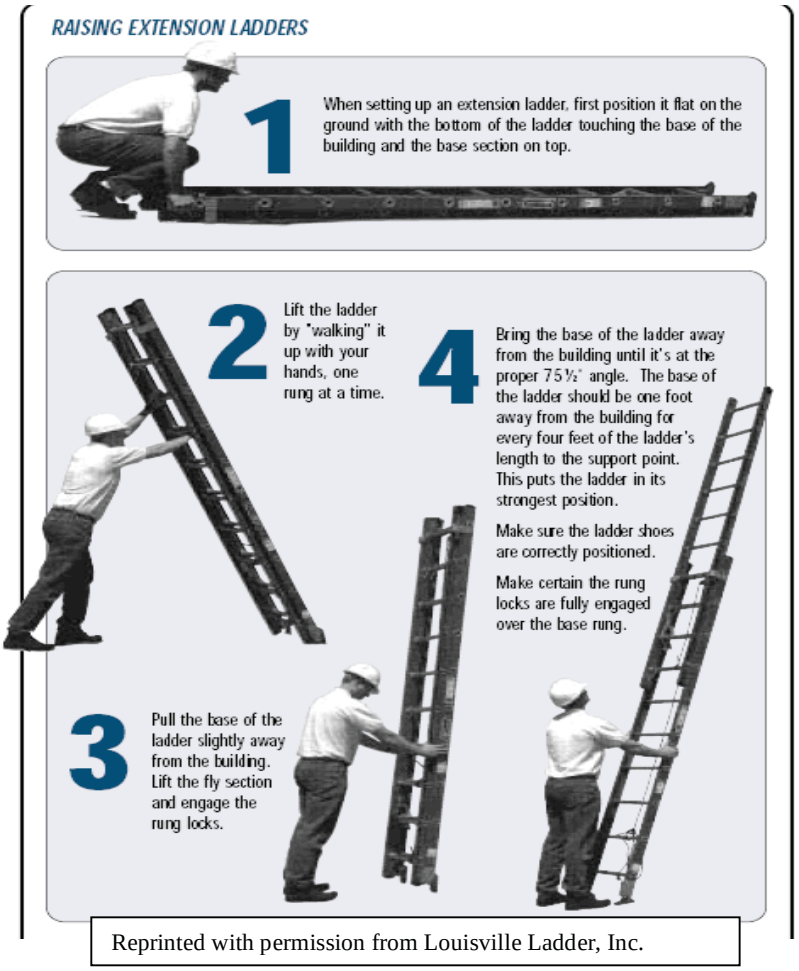
Toolbox Talk: Ladder Safety

Extension Ladder Safety



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DO…use the right ladder for the job. Ladder classification and capacity should be clearly labeled on the side rung of the ladder.
DON'T…use step ladders in place of extension ladder or stand above highest "safe standing level" prescribed by the ladder's manufacturer.

DO...use only one extension ladder.
DON'T…take ladders apart or tie a ladder to the top of another.

DO…make sure weather conditions are suitable for working on ladder.
DON'T…use extension ladder in wind or other unsafe conditions.

DO…look overhead before placing a ladder, with special attention to power lines and other electrical hazards.
DON'T…use ladders less then 10 feet away from electrical lines and assume the area above the ladder is clear of hazards.

DO….use a ladder that is in-service and inspect all ladders for damage prior to use.
DON'T…use a ladder that is out of service.

DO….set up the ladder on the ground, floor or other level, stable surface and make sure it's properly footed and secure before climbing.
DON'T…use ladder on uneven ground.

DO…take your time climbing and always use the 3-point contact system when working.
DON'T…hurry up a ladder or overreach beyond the side sills. Keep your hips inside the rails.

DO…face the ladder while ascending and descending.
DON'T…turn your back to the ladder at any time.

DO...use a belt designed for ladder work to carry tools or use a bucket to lift objects to the work area.
DON'T…carry heavy objects or tools up the ladder or carry tools in hand.

DO…wear proper non-skid rubber soled footwear and watch for slip hazards. Make sure your shoes and rungs are as clean as possible.
DON'T…climb a ladder in slippery shoes.

DO…use a barricade to keep traffic or activity away from the ladder.
DON'T…leave the ladder unattended.

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Discussion leader duties:
Obtain a ladder that you or an employee can use during the discussion to demonstrate key points.

What this Toolbox Talk covers:
This toolbox talk covers several "Do's" and "Don'ts" of using extension ladders.

Discussion notes:
Discuss the various negative outcomes that would result from each example of "Don't" and why it is important to "Do" the right thing.

Review Questions: True or False

1) Mulch and soft soil can be used to level an extension ladder.
FALSE: A ladder must be placed on stable surface before being used to access another level.

2) Extension ladders can be tied together or separated when you need a longer or shorter ladder.
FALSE: Never tie together or separate extension ladders. Use these ladders as they came from the manufacturer.

3) An extension ladder can be used on a windy day if it is footed on a proper surface.
FALSE: Don't use an extension ladder in wind or other unsafe conditions.

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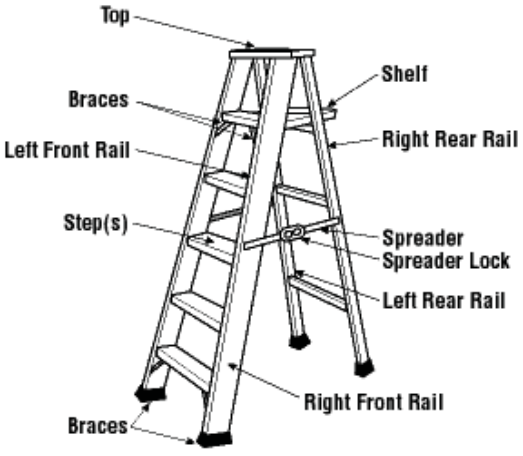
Using a Stepladder Safely

Stepladders are commonly used in the construction industry, but they require **careful** use. They are not designed for any degree of side loading and are relatively **easily overturned**.

Avoid over-reaching. People have been killed getting down from workplaces such as loft spaces when they have stepped onto the top step of a stepladder which then overturned.

- Ensure stepladders are positioned on level ground and used in accordance with the manufacturer's instructions.
- Do not use makeshift or home-made ladders or carry out makeshift repairs to a damaged ladder.
- Make sure all four feet of the ladder are on a firm, dry, level surface.
- Be sure to clear the ground area around the ladder before climbing.
- Check the ladder carefully for any cracks or loose pieces.
- Only use stepladders ladders in a fully open position. Lock the side braces and cross braces before climbing.
- Do not use a stepladder as a straight ladder in a folded and leaning position.
- Always wear proper footwear with good tread when climbing.
- Do not stand on the top two steps of the ladder unless they are designed for standing.
- Watch for people working under or around the ladder.
- Keep your body centered on the middle of the ladder.
- Do not lean to reach items while standing on the ladder.
- Get someone to assist you when working with a ladder.
- Avoid lifting or carrying any heavy items while climbing up or down the ladder.
- Use a ladder made out of non-conductive material for electrical work.
- Do not use stepladders to support work platforms.



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Discussion leader duties:
Obtain a stepladder that you or an employee can use during the discussion to demonstrate key points.

What this Toolbox Talk covers:
This toolbox talk covers how to use a stepladder safely.

Discussion notes:
Discuss the safety tips above and review various negative outcomes that could result from failure to follow these tips..

Review Questions: True or False

1) Do not lean to reach items while standing on the ladder.
TRUE: As a rule of thumb, keep your belt-buckle between the rails.

2) Do not use a step ladder in a folded and leaning position in place of a straight ladder.
TRUE: Step ladders should only be used in a fully open position with side braces and cross braces locked.

3) Two stepladders can be used to support a work platform.
FALSE: Stepladders should not be used to support work platforms.

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