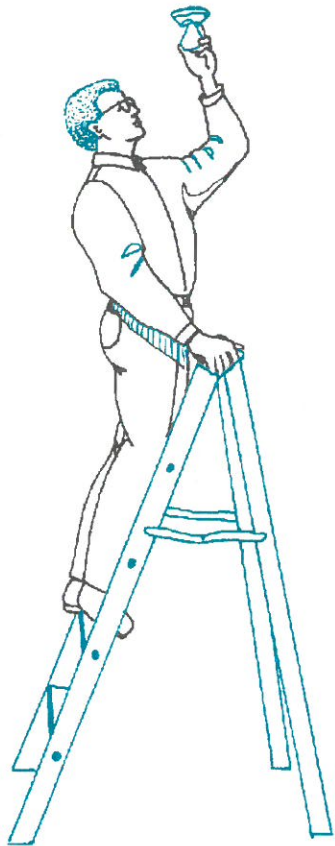


**LADDER SAFETY**

## Many Jobs Require Us To Use Ladders



There are many times when our jobs require that we have access to places that are higher than we can normally reach.

In these situations, we have several different types of equipment to choose from:

- Lift trucks.
- Scaffolding.
- Ladders.

Fortunately, in most situations the easiest solution can be used... ladders. Ladders are lightweight, and easy to move. They make jobs easier and make us more efficient.

However, we need to be careful when using ladders. It's all too easy to fall, and you can encounter a number of other hazards when you are on a ladder as well.

Using ladders incorrectly can lead to accidents and serious injuries, so we need to know as much about how to properly set up and work with ladders as possible.

## Know Proper Procedures For Using Ladders

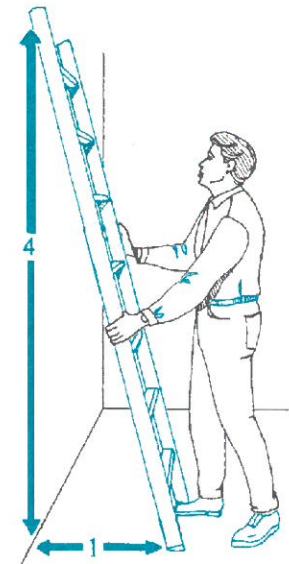
Learning to use ladders properly is the key to ladder safety. Before you start, read the manufacturer's instructions.

When using a straight ladder to reach a roof or other platform remember that the top three rungs should extend beyond the roof edge. This keeps the ladder stable. With extension ladders, the two sections should overlap a minimum of three rungs.

Any ladder should be tall enough so that it can be set up at a safe climbing angle.

Use the "4-to-1" ratio:

- Set the ladder one foot away from the wall for every four feet of working length.
- This keeps the ladder at a 75° angle.
- Most ladders have stickers illustrating this principle.



Ladders also have different weight capacities. Read the manufacturer's label to determine how much weight yours can hold. Remember, add the weight of tools and materials you are carrying to your own weight to get the total load.



## It Is Important To Keep Ladders In Good Condition

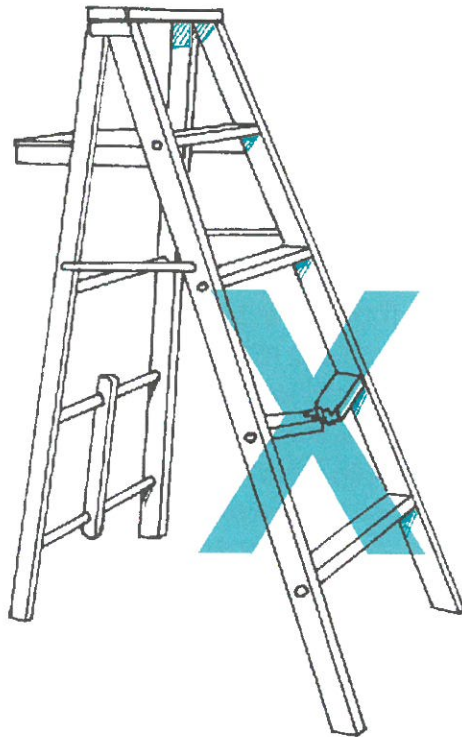
Many ladder accidents occur because of problems with the ladder's condition. You should be familiar with all of your ladder's working parts, and conduct a thorough inspection each time you use any ladder.

Make sure that:

- Rungs are firm and unbroken.
- Braces are fastened securely.
- Ropes, pulleys and other moving parts are in good working order.

If your inspection reveals broken or damaged parts repair them, if you can.

If it is not possible to correct the problem, report the damage to a supervisor and get a new ladder.



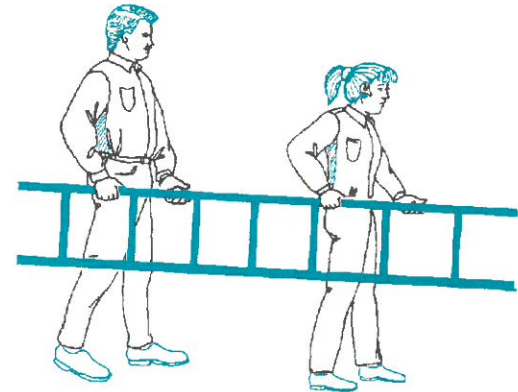
## Know How To Move And Set Up Ladders Properly

When working with a straight or extension ladder make sure the "feet" are level and sitting firmly on the ground. The upper portion of the ladder should be positioned so that both sides are against the wall or other support.

Special steps should be taken to stabilize a stepladder:

- Spread the ladder's legs as far as possible.
- Lock "spreader bars" firmly into position.

Ladders which are permanently attached to walls or other surfaces can have their own, unique problems. Make sure all the rungs are securely attached, with no corroded areas. Check for rust or corrosion on the safety cage, as well.



When moving a ladder from one location to another, you need to follow special procedures:

- Carry the ladder horizontally.
- Grasp the ladder so that both you and the ladder are balanced.
- If the ladder is long or heavy, get help.

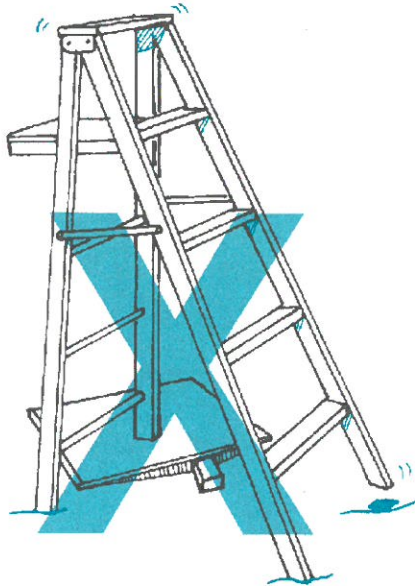
## Ladders Should Be Stable Before You Climb

Many accidents occur because ladders are not adequately stabilized when they are set up. It doesn't take much to throw a ladder "off-kilter". With ladders there is a lot of weight balanced on very small "feet".

Don't be in a hurry. Make sure you take the time you need to set up your ladder correctly.

When you set up a ladder, you need to pay special attention to the surface that it will rest on:

- Keep the area around the ladder clear of debris.
- If the ground is soft, place wide boards under the ladder's feet.
- On uneven ground also firm up the ladder's legs with boards or other braces.
- Make sure rails are perpendicular to the ground.



Once you have your ladder set, test it. Often ladders can look stable just standing there, but can tilt badly once a little weight is put on them.

## Some Situations Call For Extra Caution

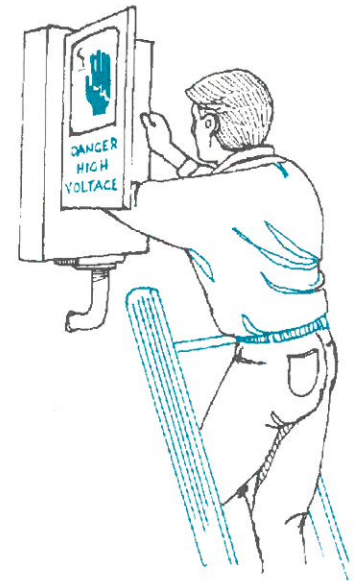
Some situations call for extra caution. For instance, metal ladders should not be used when working near power lines or electrical wiring.

If a metal ladder contacts an uninsulated power source, it can cause shock or even electrocution. In situations where electricity may be involved, use a ladder made of fiberglass or wood.

Working in doorways or other traffic areas can be especially dangerous. If possible, lock all nearby doors. Barricade the area and post appropriate warning signs.

There are certain types of situations where ladders should not be climbed at all. These include:

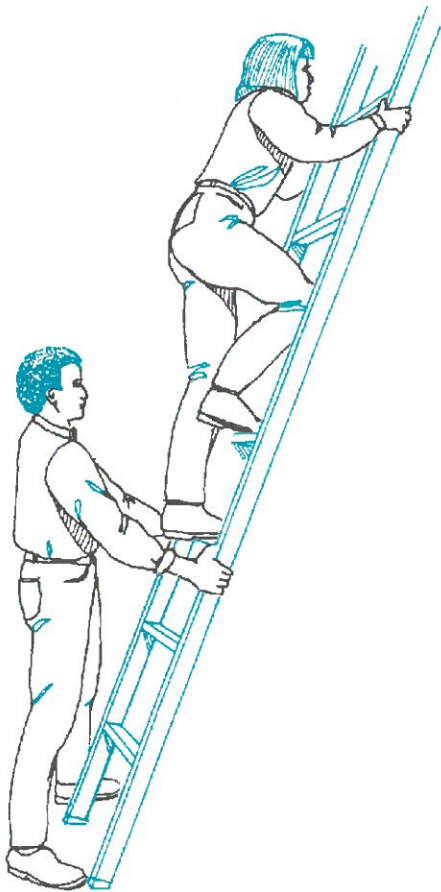
- When you are drowsy or sleepy.
- When you feel ill.
- When you are under medication.
- Under poor weather conditions, such as in wind and rain.





# Knowing How To Properly Climb Ladders Is Important

Knowing how to properly climb ladders is especially important. Preparation is key. Before climbing, perform a final check to make sure your hands and shoes, as well as the rungs of the ladder, are dry and free of slippery substances.



When you are ready to climb, use the “buddy system”, if possible. With this approach the second person holds the bottom of the ladder so it won’t slip.

The second person can also prevent something (or someone) from accidentally bumping the ladder.

Some people have a fear of being in high places. Never force someone who is uncomfortable to climb a ladder. You could endanger both their safety... and your own.

# Use The “Three - Point” Climbing Technique

When climbing, be sure to follow the standard “three-point” procedure:

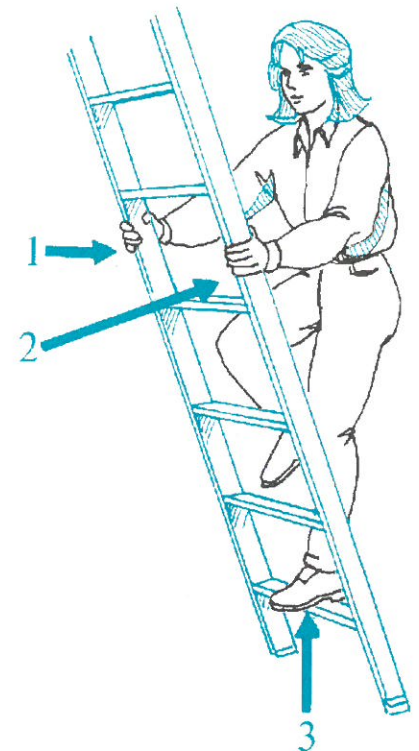
- Keep three of your four hands and feet in contact with the ladder at all times.
- This can be two hands and a foot... or one hand and two feet.

This approach will keep you in maximum contact with the ladder and assure that you don’t lose your balance.

There are other safe climbing techniques that you should also use when working on a ladder.

You should:

- Always face the front of ladder.
- Keep your hands on the side rails, not the rungs.
- Climb the ladder slowly, never rush.
- When descending, step all the way down to the ground. Never slide down or jump off.

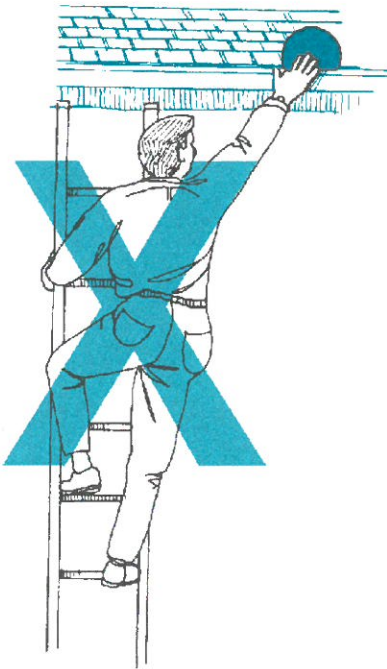


## Weight Distribution Is Important As Well

Having the correct weight distribution when you are working on ladders is also important. Center your weight on the ladder by using the “belt-buckle” rule.

Keep your belt-buckle between the ladder rails. This will maintain your center of gravity in the correct position. Remember, in most cases your ladder is not anchored or fastened to any other object to prevent it from slipping... so keeping your weight over the ladder’s legs is very important.

Standing too close to the top of a ladder can also be dangerous. It can often cause you to lose your balance and take a nasty fall.



To distribute your weight most effectively and maintain good balance, make sure to follow these rules:

- Don't stand on the top four rungs of a straight ladder.
- Don't stand on the top two rungs of a stepladder.
- If need be, get a bigger ladder.

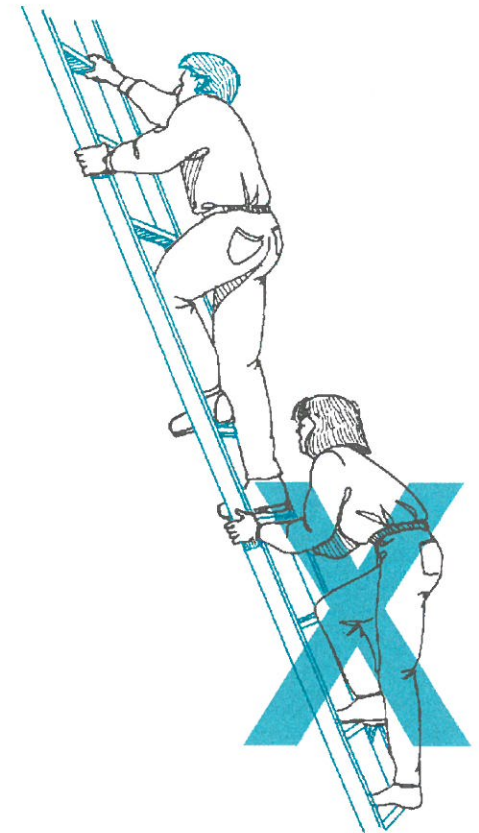
## Most Ladders Are Built For Only One Person

Most ladders are built for only one person. Having multiple people on a ladder can create stress that will weaken the ladder. Another person's movements can also throw you off balance, and lead to a fall.

If several people are using the same straight ladder, make sure that the first person has completed their climb and is off the ladder before the next person starts theirs.

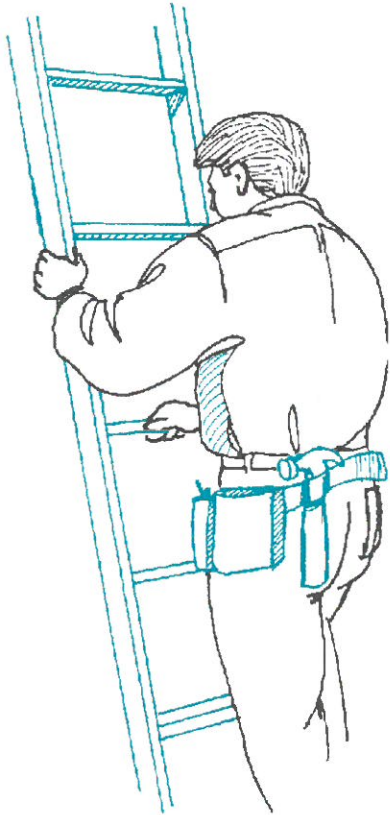
Stepladders should also only be used by one person at a time. Don't let someone stand on the back braces or side supports when you are using a stepladder.

An exception to this rule is the specially built, “two-person” stepladder.





## Know How To Safely Handle Tools And Materials



Hoisting materials and tools while climbing can be especially dangerous. To be safe, follow these simple rules:

- Wear a tool belt, if possible.
- Only pull materials up after reaching the top of your climb.
- Whenever possible, fasten containers or tool holders to the ladder itself.

Falling objects can be dangerous to people below. Keep aware of people underneath your ladder, and what they are doing. Make sure that you handle tools and materials above them with care.

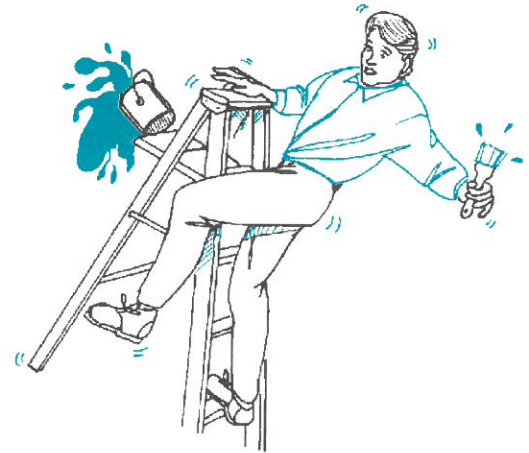
Never leave a raised ladder unattended. If you want to leave it up, have someone else stay with the ladder while you leave. If no one is available, bring the ladder down until you return. When you are finished your job, store the ladder in a safe, dry location.

## Knowing How To Fall Can Prevent A Major Injury

Even when you are working safely on a ladder, things can go wrong. Then, knowing how to fall can prevent a serious injury:

- Relax your muscles.
- Absorb the fall's impact by bending your arms and legs.
- Roll in the direction of the fall.

If someone does fall, most often injuries will result. Scrapes, lacerations, broken bones, or even spinal damage are all possible.



If you are assisting with this type of accident situation:

- Do not move the injured person unless they are in extreme danger.
- Call for medical help immediately.
- Monitor the victim's breathing.
- Stop any bleeding, if possible.
- Be prepared to treat the victim for shock.

## Remember . . .

- To work safely on ladders, maintain a “safety first” attitude.
- Know what you have to do, and pick the right ladder for the job.
- Always test ladders before each use.
- Set up straight ladders using the 4-to-1 rule.
- Make sure your ladders “feet” are level and on a solid surface.
- Follow safety rules when climbing and working.
- Be careful with tools and materials when using a ladder, especially if people are working below.
- If an accident occurs, be prepared to act.

Ladders help us to be more efficient and productive but they can also be dangerous.

Before starting work, know how to set up and use your ladder. Use proper practices when climbing and working on ladders... and you will stay safe!



## QUIZ

1. If using a straight ladder to reach a roof, how many rungs should extend beyond the roof edge for proper support?  
• 2                      • 3                      • 4
2. What is the correct relationship between a ladder's distance away from the wall verses its “working length”?  
• 3 to 1                      • 4 to 1                      • 5 to 1
3. True or False?... When moving a ladder from one location to another, you should carry it vertically.  
\_\_\_\_\_ True                      \_\_\_\_\_ False
4. When climbing a ladder, how many “contact points” (hands and feet) should be touching the ladder at all times?  
• 2                      • 3                      • 4
5. Which rungs of a step ladder are not safe to stand on?  
• Top two rungs  
• Top rung  
• Top three rungs
6. True or False?... The safest way to pull materials up the ladder is by hauling them up as you go.  
\_\_\_\_\_ True                      \_\_\_\_\_ False
7. How many rungs of an extension ladder should overlap in the center when it is extended?  
• 3                      • 4                      • 5

Answers: # 1 - 3, # 2 - 4 to 1, # 3 - False, # 4 - 3, # 5 - Top two rungs, # 6 - False, # 7 - 3.



Quality Safety and Health Products for Today... and Tomorrow.