



## ***ABOUT LADDER SAFETY***

**LENGTH: 14 MINUTES**

### **PROGRAM SYNOPSIS:**

Our workplace is full of hazards, hazards that can hurt us or kill us. Controlling these hazards and preventing injuries is the point of our safety and health program. One such hazard is the potential for a fall anytime a ladder is used to reach an elevated position. Ensuring that ladders are used properly and in a safe manner can prevent injuries and save lives. That is the point of our facility's policies regarding the safe use of ladders and that is the point of this program. So, pay close attention as we get to the point about ladder safety.

Topics include common ladder mistakes, ladder selection, ladder inspection, transporting a ladder, proper ladder setup and climbing and working on a ladder safely.

### **PROGRAM OBJECTIVES:**

After watching the program, the participant will be able to explain the following:

- What are some of the common ladder mistakes that workers often make;
- How to select the proper ladder for the task at hand;
- What to look for when inspecting a ladder;
- How to avoid injuries when transporting a ladder;
- How to set up a ladder properly;
- What precautions to take when climbing and working on a ladder.

### **PROGRAM OUTLINE**

#### **IMPORTANCE OF A GOOD SAFETY ATTITUDE**

- Step ladders, straight or extension ladders, rolling ladders, step stools and specialty ladders: each have the potential to be very dangerous, so it is critical that workers follow safe work practices when using any type of ladder to avoid mishaps and injuries.
- Our organization is committed to preventing ladder-related injuries. To achieve this, we will provide you with the proper ladder for the job and the training necessary to use ladders safely, but all workers must understand that their safety while on a ladder depends on their attitude and personal commitment to working safely at all times.
- A good safety attitude requires that you plan for and anticipate any hazards you may encounter before you select or climb any ladder. This commitment to safety will help you avoid the temptation to use the wrong ladder for the job or use a ladder for a purpose for which it is not intended.

#### **COMMON LADDER MISTAKES**

- Make it a point to avoid these common mistakes. Never tie two ladders together in an attempt to gain additional height.
- Do not use a folded up stepladders as a straight ladder. The feet are not designed for this purpose and can easily slide out from under the ladder.
- Ladders are not designed to support a horizontal load and must never be used in place of a scaffold or platform.
- Never substitute other objects for a proper ladder or step stool. Climbing onto boxes, chairs, desks and similar objects cause many injuries each year.
- Also, never stand on the forks of a lift truck or on a pallet as a means to reach an elevated position. This is extremely dangerous and is strictly prohibited.
- Before selecting a ladder and proceeding with your work, first make sure a ladder is the proper tool for the job. If the planned work will involve a great deal of lateral movement or handling heavy tools and materials, an aerial work platform or scaffolding may be a better choice.

#### **LADDER SELECTION**

- Once you have determined that it is safe to use a ladder for your task, make it a point to choose the correct ladder for the job. The two most common types of ladders are step ladders and straight ladders.
- Straight ladders come in two forms, single units and extension ladders. Extension ladders can be raised for additional height.
- Step ladders are self-supporting and can be used to reach areas away from walls or other means of support. Step ladders have a small area on top and a shelf that can hold small tools and materials. This makes them a good choice for painting and for using small hand tools while elevated.
- A straight ladder must be leaned against a wall or other means of support and has no area for the storage of tools or materials.
- An extension ladder is a good choice to reach very high areas.

- A straight ladder, when secured properly, is a good choice for accessing a higher level working surface.
- Step stools, rolling ladders and various types of specialty ladders are also common choices used to reach items overhead.
- Most ladders are made of aluminum, wood or fiberglass. Keep in mind that aluminum ladders conduct electricity and should never be used when working around sources of electricity.
- Be aware that wooden ladders often contain weaknesses and defects that are difficult to identify, especially if the ladder is painted. You should never paint a wooden ladder and you should never use a wooden ladder that is painted.
- When selecting the appropriate ladder, make sure it is tall enough or can be extended far enough to safely reach the job at hand without having to over reach for the work or stand above a safe level.
- Also, make sure the ladder is strong enough to support the work load, which is your weight combined with the weight of all tools and work materials to be used while on the ladder. You can check the label on a ladder for its duty rating, which indicates how much weight it can safely support.
- If you intend to use a specialty ladder, make sure you read and understand the instructions on its proper use. These types of ladders can be folded and adjusted to accommodate a variety of situations and it's imperative that the ladder be level, secure and stable before climbing.

### **LADDER INSPECTION**

- After selecting a ladder, you must make it a point to conduct a thorough pre-use inspection to ensure that the ladder is in good working order.
- Make sure the rungs aren't loose or damaged and clean off any mud or other slippery substances that could cause a slip or fall.
- Check the side rails for cracks and other defects. Also, make sure they aren't bent, dented or bowed.
- Make sure that screws, hinges, rivets and other components aren't loose or missing.
- Inspect the condition of the feet. Replace any damaged or worn feet or pads.
- On extension ladders, check to see that the rope isn't frayed or damaged. Also, make sure the extension locks work properly.
- On step ladders, the spreaders should be inspected to ensure they are in good condition and are able to lock securely.
- On specialty ladders, all moving parts and securing pins and latches must be verified to be in good condition and operating properly.
- If you discover any damage or defect during your inspection, follow our organization's policy for removing the ladder from service.

### **TRANSPORTING A LADDER**

- Another important safety consideration when using ladders is transporting them to and from the work area. Ladders can be heavy, long and awkward to carry. Making it a point to handle them safely can prevent injuries.
- Step ladders, extension ladders and specialty ladders should always be fully closed before they are transported. This makes them much easier to handle and also reduces the potential for a pinching injury while handling the ladder.
- Ladders should be carried parallel to the ground. Holding the ladder by a rail, in the middle of the ladder, will help you keep it balanced. Perform a test lift to check the balance. If it's not evenly balanced, set the ladder down and adjust your hand placement until good balance is achieved.
- Be sure to ask for help when transporting a ladder that is too heavy or too long to move alone.
- Inspect your planned route prior to moving the ladder and make sure there are no hazards in the intended path and that the length of the ladder will not create a hazard for others along the way.
- When approaching a corner, tip the front end of the ladder low to the ground to avoid striking anyone who may be approaching and proceed cautiously.

### **PROPER LADDER SETUP**

- Once you have arrived at your destination, the ladder must be set up properly to maintain its stability and allow the work area to be reached safely.
- Make sure there are no power lines or other electrical sources overhead. You and any conductive objects or tools you may be using, must stay at least 10 feet or three meters away from energized electrical parts.
- If the work zone is in an area with frequent vehicle or pedestrian traffic, set up a barricade or have a co-worker serve as a watch to alert others of your presence. This will not only protect others from objects that may fall from above, but will also help prevent pedestrians and moving equipment from knocking over the ladder while you are working.
- If the work zone is in the path of a doorway, make sure the door is secured and have a co-worker stand watch to prevent collisions.
- The area where the ladder will be erected must be cleared of clutter and debris.
- The ladder must be set up on a solid, level surface. If you encounter a surface or soil that isn't firm, place a large flat board underneath the feet of the ladder to keep it stable.
- Bricks, boxes, rocks and similar objects should not be used to stabilize a ladder, as they can easily shift or kick out of place, causing the ladder to fall.
- If you have any doubts about a ladder's stability after set up, use a rope or a stabilizing strap to tie it off to a sturdy, immobile object to prevent the ladder from slipping or sliding.
- When setting up a straight ladder, you should place it one foot away from the wall for every four feet of ladder height. For example, if the ladder makes contact with the wall at 16 feet, the feet of the ladder should be placed four feet from the wall.
- The upper section of an extension ladder can also be raised by pulling the rope. When it reaches the height you need, relax the rope so that the upper section drops slightly to engage the locking hooks.
- Also, any ladder used to access another level must extend three feet or one meter above the landing area and be securely tied off.
- To provide adequate strength and stability, the upper and lower sections must overlap by at least three feet or one meter.
- When an extension ladder is extended beyond 32 feet, this overlap must be even more. Always follow the manufacturer's recommendations on proper use and overlap of extension ladders.

## **CLIMBING & WORKING ON A LADDER SAFELY**

- Once you have the ladder set up properly, make it a point to climb and descend the ladder safely.
- Make sure the soles of your shoes or boots are clean and that your shoe laces are tied before starting your climb.
- Don't climb the ladder while holding anything that could cause you to lose your balance. Place your tools in your tool belt or have a co-worker hand them up to you. You may also want to use a rope and bucket to haul up tools and materials to the work zone.
- Always face the ladder while climbing and maintain three-point contact by always having one hand and two feet or two hands and one foot on the ladder at all times.
- Climb the ladder slowly and carefully. Climbing too fast can shake the ladder and cause you to lose your balance or can cause the feet of ladder to kick out, leading to a fall.
- When you have reached your destination, follow these simple precautions while working to help prevent you or the ladder from falling.
- While working on any ladder, avoid overreaching and do not lean beyond the side rails. One way to remember this is to always keep your belt buckle between the two ladder rails.
- If you must use both hands to perform your task, use your body as the third point of contact with the ladder while working in a stationary position.
- Never use the top two steps on a step ladder or the top three rungs on a straight ladder. If you can't reach the work safely, climb down and get a taller ladder.
- Also, climb down anytime you need to move or reposition your ladder. Never attempt to "walk", "bounce" or "hop" a ladder from one place to another. This unsafe act can quickly lead to serious injury or death.
- Also, do not sit on or straddle the top of a step ladder and do not climb the back of a step ladder or place any body weight on the paint shelf or spreaders. These areas are not designed to support your body weight.
- Only one worker is permitted on a ladder at a time. The weight of a second worker could overload the ladder. In addition, the simultaneous movements of multiple persons could cause the ladder to become unstable.