


The background of the slide features a large, faded seal of the University of Hawaii. The seal is circular and contains the text "UNIVERSITY OF HAWAII" at the top and "1907" at the bottom. In the center, there is a shield with the Hawaiian words "MA LA MA LAMA" and a torch. The seal is overlaid with the main title text.

Basic Ladder Safety

February 2021

A solid green horizontal bar spans the width of the slide at the bottom.

Safe Ladder Usage

A Consumer Product Safety Commission (CPSC) report on ladder safety showed some startling statistics concerning the frequency and severity of ladder-related accidents in the United States. Every year thousands of people are injured and hundreds are killed. By understanding the causes of ladder accidents the vast majority could be prevented.

More than **90,000 people receive emergency room treatment** from ladder-related injuries every year

Elevated falls account for almost **700 occupational deaths** annually

These deaths account for 15% of all occupational deaths

OSHA believes 100% of all ladder accidents could be prevented if proper attention to equipment and climber training were provided

Over the last 10 years the amount of ladder-related injuries has increased 50%

According the Bureau of Labor Statistics, 50% of all ladder-related **accidents were due to individuals carrying items as they climbed**

The most common type of ladder-related injury, with 32%, is fractures

This training will be in compliance with OSHA 29 CFR 1910 Subpart D Walking-Working Surfaces

1910.23 Ladders

1910.23(a) Application. The employer must ensure that each ladder used meets the requirements of this section.

1910.30 Training requirements

1910.30(a)(1) Before any employee is exposed to a fall hazard, the employer must provide training for each employee who uses personal fall protection systems or who is required to be trained as specified elsewhere in this subpart.

OPERATIONS AND MAINTENANCE DEPARTMENT FALL PROTECTION POLICY 02/11/21

As personnel in this department are not trained in the area of Fall Protection Safety and for your continued safety on the job, working at heights above 4 feet is prohibited.

The exceptions to this are below.

1. Working properly and safely on a ladder if the individual has attended Ladder Safety Training within the last year.
2. Working on the roofs of Buildings 8802, 8806 & 8807 where parapet walls exist. Individuals will keep a 6-foot distance from the parapet walls.

All O&M Supervisory personnel shall ensure compliance with this policy.

**Ref: 29 CFR 1910 Subpart D Walking-Working Surfaces
29 CFR 1910.23 Ladders
29 CFR 1910.30 Training**

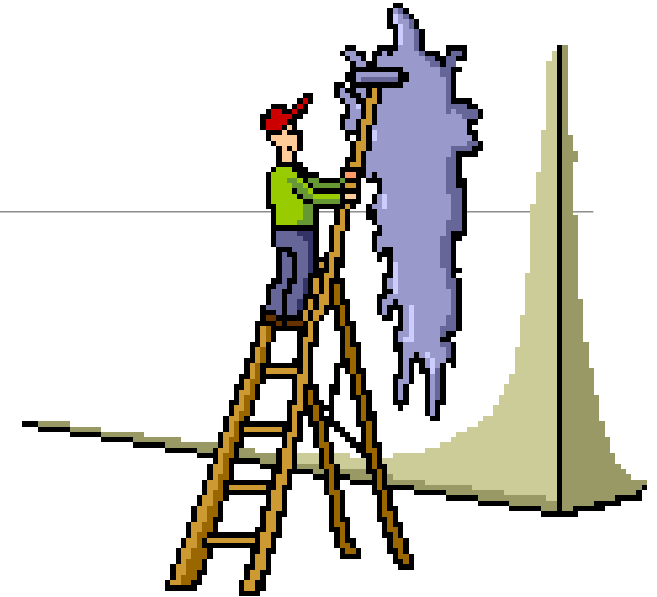
Safe Ladder Usage

Select the right ladder for the task

- Size (4', 6', 8', etc)
- Type
 - wood, aluminum, fiberglass
 - step, extension, straight
- Strength rating
 - (Type I (250 lbs), IA (300 lbs), IAA (375 lbs),
 - II (225 lbs), III (200 lbs))

Inspect ladder for defects

- Damaged or missing components
- Clean ladder of foreign material
- Replace bent, broken or otherwise damaged ladders



4 Main Types of Ladder Accidents

4 Main Types of Ladder Accidents

Ladder accidents are extremely common even though they are entirely preventable. Ladder accidents can come from a wide variety of issues but the following four causes account for the vast majority. If these simple loss prevention tips for each cause are followed, ladder accidents could almost be eliminated.

1. Selecting the Wrong Type of Ladder

Like most other jobs, choosing the right tool can make all the difference when it comes to safety and this is the same for ladders. One thing to consider when selecting an appropriate ladder is the ladder's weight capacity. Each ladder is designed to support a maximum weight limit and if the climber exceeds that limit the ladder could break and cause the user to fall or become injured.

Another consideration when selecting the appropriate ladder for a job is the necessary height of the ladder. Many injuries occur due to ladders being too short for a specific task, and instead of selecting a new ladder for the job, workers will place the ladder on something to extend its reach or will stand on the top rung to gain the necessary height. Both scenarios are extremely dangerous and can result in serious injuries.

2. Using Worn or Damaged Ladders

Another common contributing factor to ladder accidents is the use of old, worn, or damaged ladders. Like everything else, ladders have a shelf life; after a couple of years the stress of being climbed up and down on causes ladders to break down. Damaged ladders are extremely dangerous as they can easily break while being used and cause serious injuries.

To protect yourself from damaged or broken ladders, make sure to thoroughly inspect each ladder before using it. If any damage is found, do not use the ladder until it has been safely repaired to the manufacturer's specifications or it has been replaced.

3. Incorrect Use of Ladders

Human error is by far the leading cause of ladder accidents. Never use a ladder in any other way than what the manufacturer intended it to be used for. Also, do not lengthen or alter a ladder in any way.

While using a ladder **always maintain 3 points of contact** with the ladder to ensure stability. Also, never attempt to reach for something while on the ladder. It is much safer to get off the ladder, move it, and then climb back up.

4. Incorrect Placement of Ladders

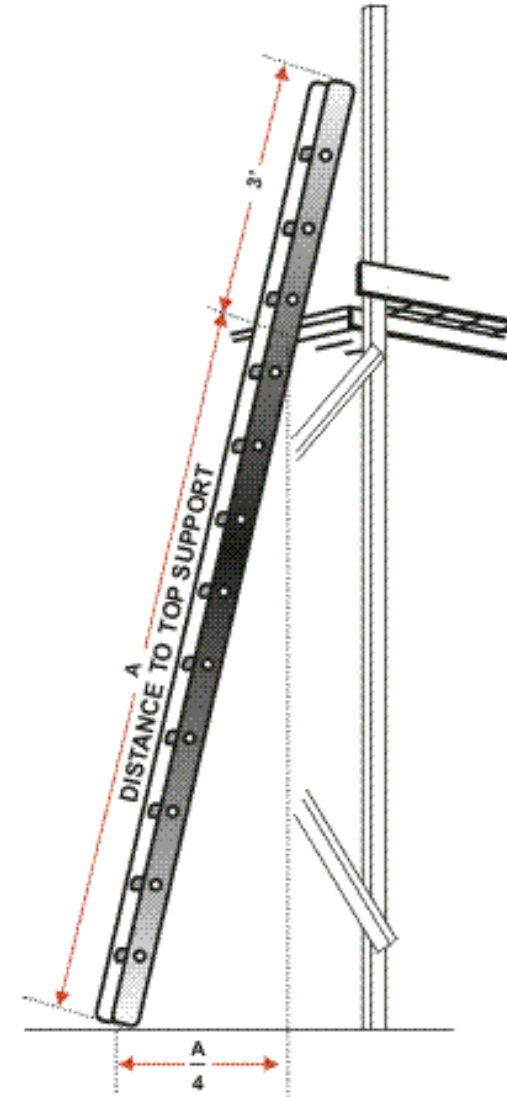
Make sure that when positioning a ladder, the ground you place it on is level and firm. Ladders should never be placed in front of a door that is not locked, blocked, or guarded.

A good practice to ensure a ladder is secure is to always have a helper support the base while a ladder is being used. If the ladder can not be held by someone else, make sure it has an appropriate foot to prevent it from slipping. The feet of the ladder can be staked if you are using a ladder outside and no one is available to support the feet of the ladder.

Safe Ladder Usage

Properly place the ladder

- On firm, level ground
- Step ladders to be fully opened & spreaders locked
- Extension ladders should extend 3' above roof/landing
- Do not block active stairs or doorways
- Secure the ladder
- 4:1 rule



Safe Ladder Usage

Always...

- Use 3-points of contact (no carrying)
- Climb one person at a time
- Face the ladder
- Use the belt buckle rule

Never...

- Climb on the top 2 rungs
- Straddle the ladder
- Use a damaged ladder



What's wrong with these pictures?



Safe Ladder Usage



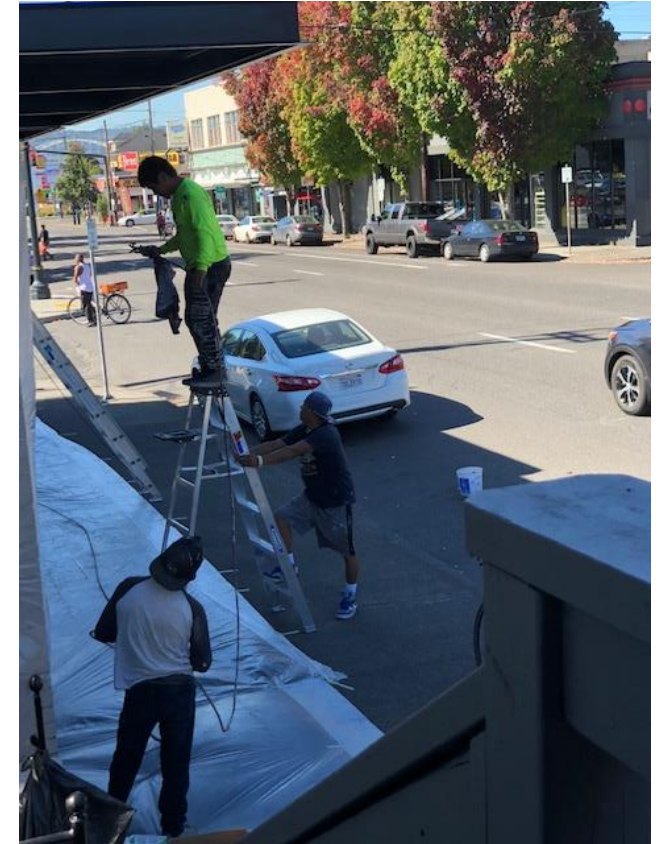
Safe Ladder Usage



Safe Ladder Usage



Safe Ladder Usage



Safe Ladder Usage



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Safe Ladder Usage



Safe Ladder Usage



Safe Ladder Usage



Safe Ladder Usage



Safe Ladder Usage



Skylights



Safe Ladder Usage Review

Selection

- Size, type, strength

Inspection

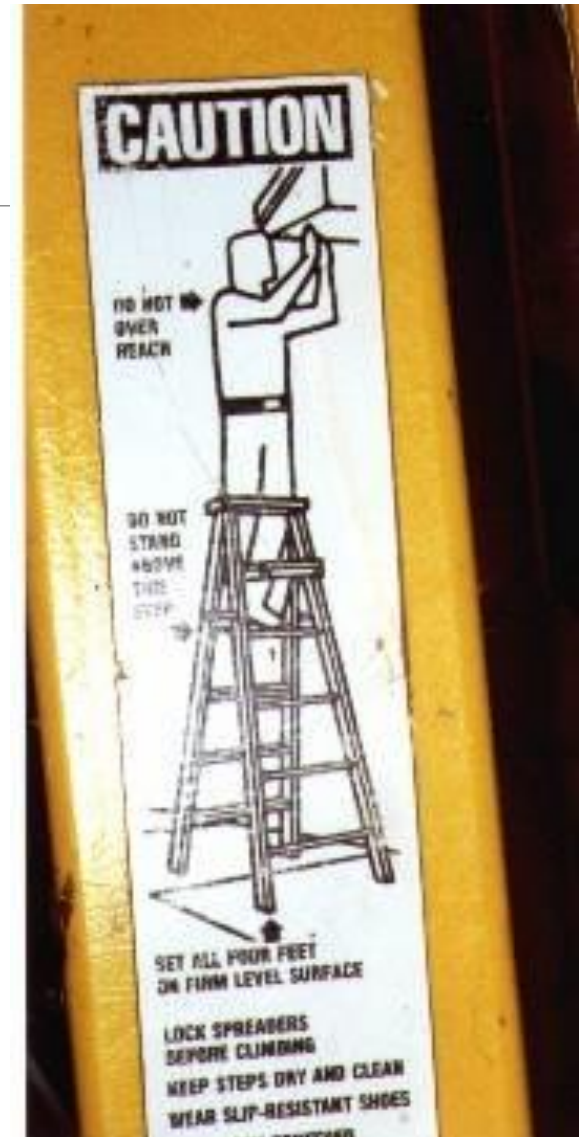
- Loose, bent, missing parts
- Remove damaged ladders

Placement

- Firm, level surface
- 4 to 1 ratio
- Fully open step ladders

Proper Use

- Face the ladder
- 3-point contact
- Minimize reaching



Questions?

