

Slip, Trip and Fall Prevention

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Objectives

Review Loss Study Info

Review Applicable Standards and Best Industry Practices

Review Common Factors Contributing to Slips, Trips and Falls

Review Surface Friction Measurements

Review Equipment

Review Practices



Why Is Prevention Important?

Falls-Second Leading Cause in Accidental Deaths
Due to Unintentional Injuries

Preventative Measures at Work Can Be Used in
the Home



Standards:

- **OSHA General Industry**
- **Specific**
- **General Duty**
- **Proposed**
- **OSHA Construction**
- **Fabricated Steel Components**

Non-Regulatory

**UL – Underwriters
Laboratories**

**ANSI – American National
Standards Institute**

**ASTM -- American Society
for Testing and
Materials**



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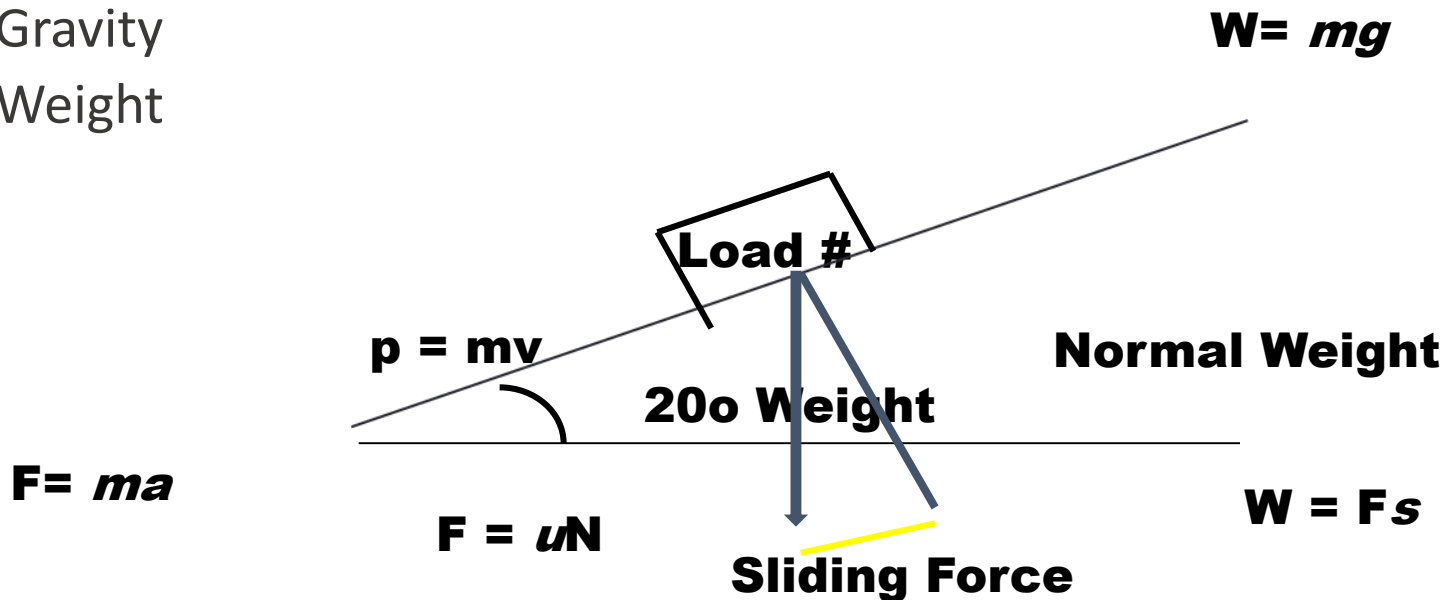


Common Factors:

- Coefficient of 0.50 as the Threshold of Safety on Flat Surfaces
- Can be measured but methods are still in the development stages (some methods controversial)

Common Factors:

- Friction (the common factor mentioned in the standards)
- Momentum
- Gravity
- Weight



Common Factors:

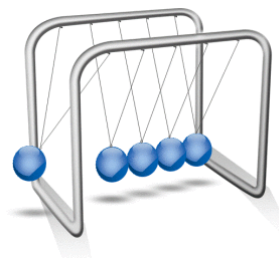
Friction: Resistance (measured as a coefficient) between things, such as your shoes and the surface you are walking on.



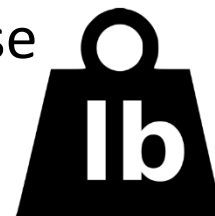
Gravity: A force that pulls you to the ground once a fall is in progress



Momentum: Affected by speed (velocity) and size (mass) of the moving object.



Weight: A combination of mass and acceleration-in this case the acceleration of gravity (32 ft/s²)





Simple Summary of a Slip, Trip or Fall


- The more you weigh and the faster you are traveling on a slippery surface (low friction), the harder your fall will be with an increased risk of injury.



Types of Falls

There are 2 types of falls:

- Same-Level Falls: High Frequency , low severity
- Elevated Falls: Lower frequency, high severity



Proper Equipment

- Footwear
- Surface Drying (Matts)
- Barriers
- Handrails
- Ladders



Proper Equipment-Footwear

Comfortable, supportive footwear with “slip” resistant soles. Overshoes, galoshes or ice grippers when performing certain tasks such as clearing ice.



Surface Drying-Matts

- Main function is to reduce the presence of water, ice, snow or oil, etc. on the flooring.
- When used need to be cleaned, placed in proper areas and not create an additional hazard



Barriers-Passive Alerts

- Signs such as “Wet Floor” or “CAUTION” tape warning others of the risk of falls.
- Signs when used need to be legible and view unobstructed





Proper Equipment-Handrails

- Installed at stairwells, accessways whenever feasible. However, they only work if people use them

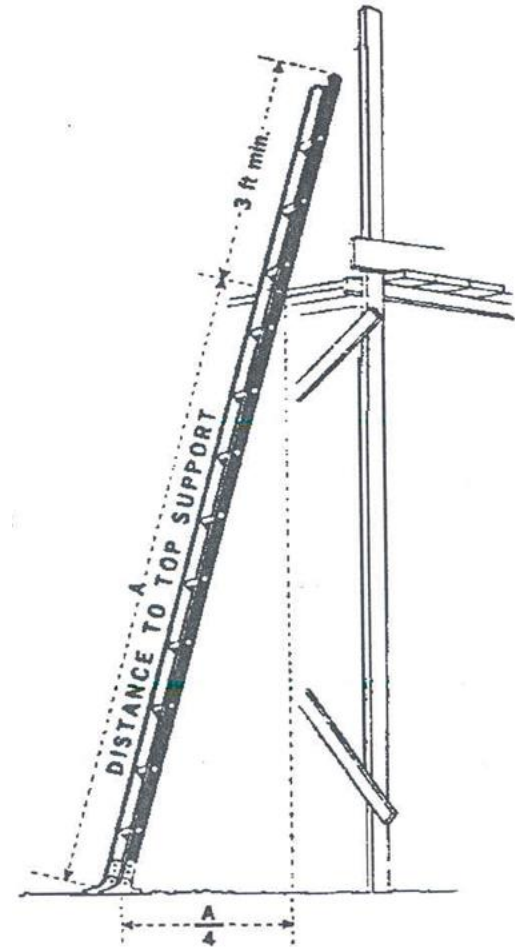
Proper Equipment-Ladders

- Use only OSHA approved Type I or IA.
- Avoid cheaper styles (Type III)
- No makeshift equipment
- Install and use properly



Proper Equipment-Ladders

- Make sure they are in good condition
- Use 4-1 set up rule
- Make sure safety feet are intact
- Face towards rungs, side rails when climbing and descending
- Never climb past second or third rung from top
- Straight ladders need to extend 3 feet from top of its support point



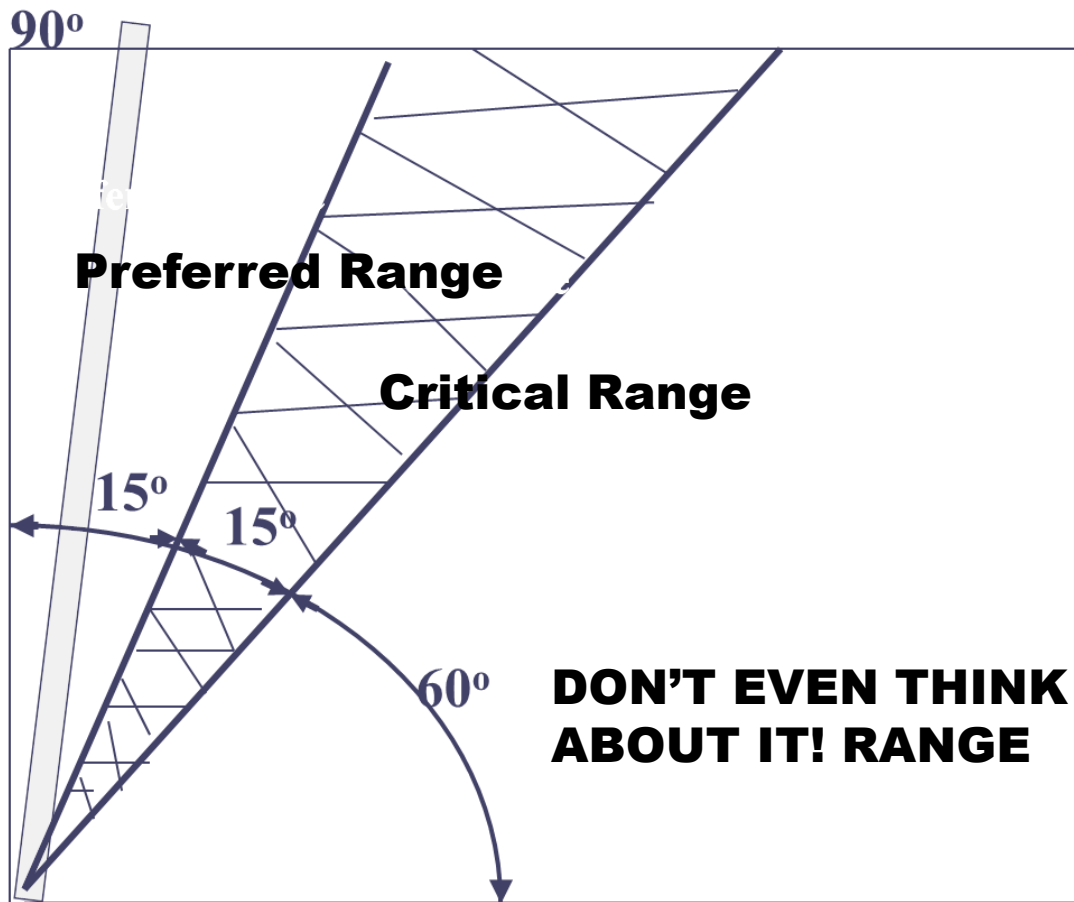
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Proper Equipment-Ladders

- Ladder should be tied down as close to support point as possible
- Don't overreach from ladder-body shouldn't extend past the side rails - "belt system"
- In wet weather be sure footwear is dry
- No more than one person on ladder at a time

Ladders



Design Better Surfaces

- Measure coefficients of current surfaces
- Replace or repair surfaces not meeting specs (less than 0.5)
- Install less hazardous flooring in new construction
- Avoid surface level changes, types of irregular flooring, reduce glare
- Water drainage away from the walking surface is key



Design Better Surfaces

Repair surfaces when obviously damaged





Fall Prevention Checklists

- General Information
- Ladders (again)
- Flooring (Maintenance and Design)



Flooring

- Keep it in good condition
- Areas with serious damage marked with warnings and barriers established
- Obvious tears, cracks, signs of disrepair are fixed ASAP
- New floors installed only after reviewing proposal listing friction ratings etc.



Flooring

- While cleaning and expecting foot traffic keep ½ of the walkway open so people can pass through
- Adequate lighting provided



Hazard Identification Log

- Lists Hazard and Corrective Action in Separate Columns
- Work with supervisors, employees, safety professionals to develop one specifically for your area
- Modify as conditions change



Hazard Identification Log

- Snow and ice clearing log
- Reports of water intrusion
- Other liquid sources
- Spreading of source by sweepers, floor cleaners



Exposure Tracking

- Develop a form or format for tracking slips, trips and falls in the work area.
- Regular tally(e.g. monthly, quarterly)
- List all relevant information
- See example



Exposure Tracking

Subpart D: Walking/Working Surfaces

1. Fall exposures of >4', falling object hazards adequately guarded.
2. Housekeeping OK? Work Surfaces clean, dry, even, maintained?
3. Fixed stairways, fixed ladders (proper angle, landings, etc.) OK?
4. Portable ladders and stairs in good condition and used correctly?



General Guidelines

- Keep walkway free of obstructions
- Adequate lighting
- Re-route high traffic areas
- Clean up debris
- Wipe up spills promptly
- Practice walking skills
- Use handrails
- **WALK. DON'T RUN**



Questions???

End of the Training Presentation

Any Questions?

Thank you for attending!

