

Know Your Limits: Fall Protection Strategies and Compliance

Presented by:

MEMIC



Webinar Focus & Questions



NOTES

- The focus of this webinar is Know Your Limits: Fall Protection Strategies and Compliance.
- Attendees must be prepared to review Human Resource and Employment Practices Liability questions with their independent insurance agent and/or company's legal counsel.



QUESTIONS

- All questions can be sent through the Q&A.
- Our panelists will respond to questions when possible, during the webinar.
- Additional resources, included slide deck will be provided at the end of the session.





LEARNING OBJECTIVES

Fall Protection Standards and Regulations

Identify relevant OSHA and ANSI standards and regulations governing fall protection

Limitations of Fall Protection Equipment

Understand the limitations of fall protection equipment to ensure proper use and prevent misuse



Common Causes of Falls

Analyze the most frequent causes of falls in both general industry and construction

Effective Fall Hazard Assessment

Describe practical methods for thoroughly assessing fall hazards specific to your workplace

Implementing Fall Protection

Discover best practices for selecting, implementing, and maintaining effective fall protection systems



INTRODUCING

Your Host & Presenters



Jayson Hebert
Presenter

SAFETY MANAGEMENT
CONSULTANT,
WCP®



Peter Koch
Host

MANAGER,
DIGITAL TECHNOLOGY,
WCP®



Daniel Thibeault
Presenter

SAFETY MANAGEMENT
CONSULTANT,
WCP®



Why Falls Are Still Killing Workers... and What We Can Do About It



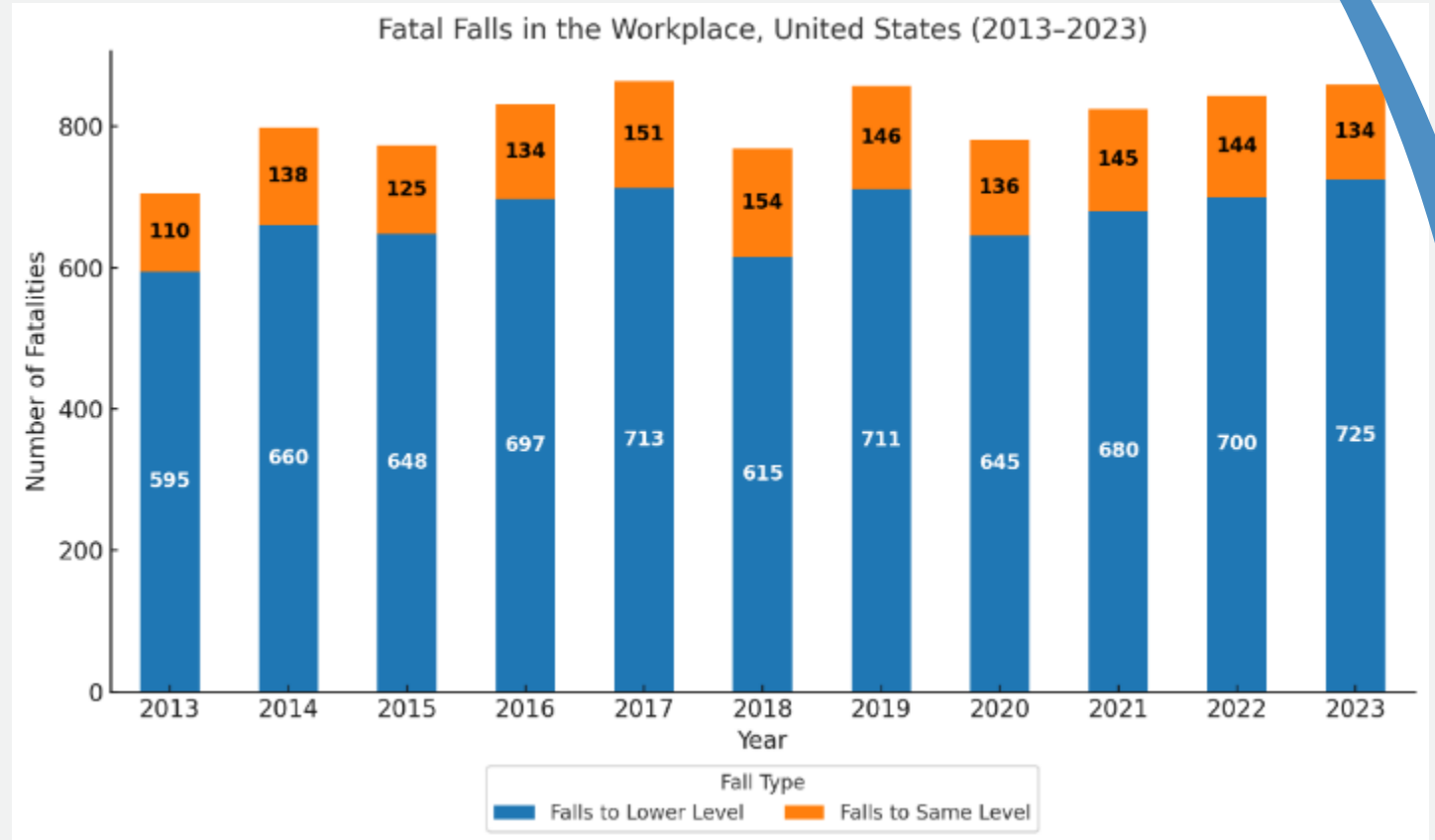
What Does the Data Say?

1 850+ workers died from falls in 2023

2 Top cause in construction industry:
nearly 40% of all construction deaths

3 Most violated OSHA standard year
after year: Fall Protection (1926.501)

4 Billions in workers' comp costs
annually from fall-related injuries



Source: <https://injuryfacts.nsc.org/work/safety-topics/falls-lower-level/>





What types of fall related incidents are common in your workplace?



Common Causes of Falls

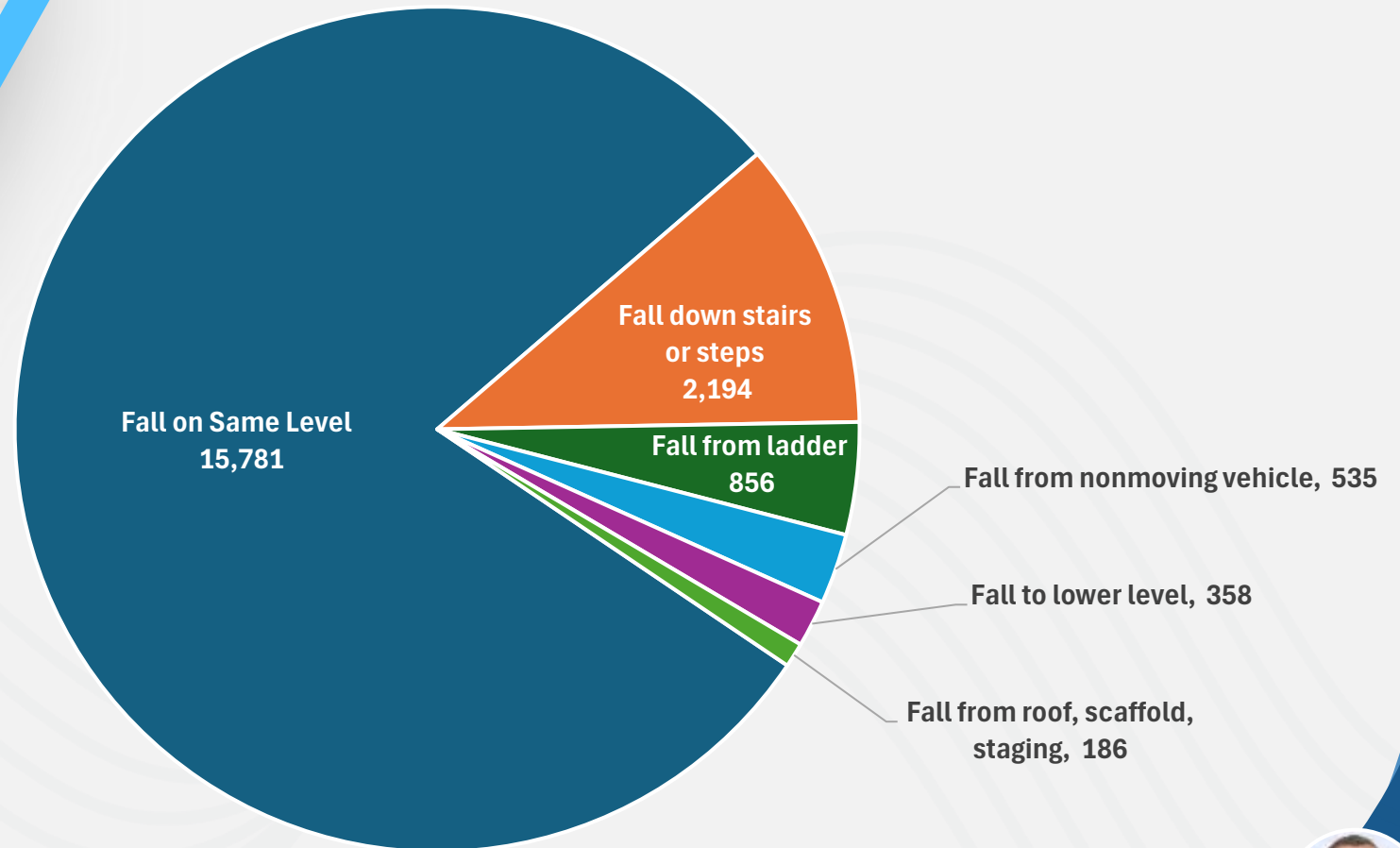
- ☑ Unprotected edges and openings
- ☑ Misuse or lack of fall protection equipment
- ☑ Slips, trips, and unstable walking surfaces
- ☑ Improper use of ladders and scaffolding
- ☑ Weather/Environmental factors





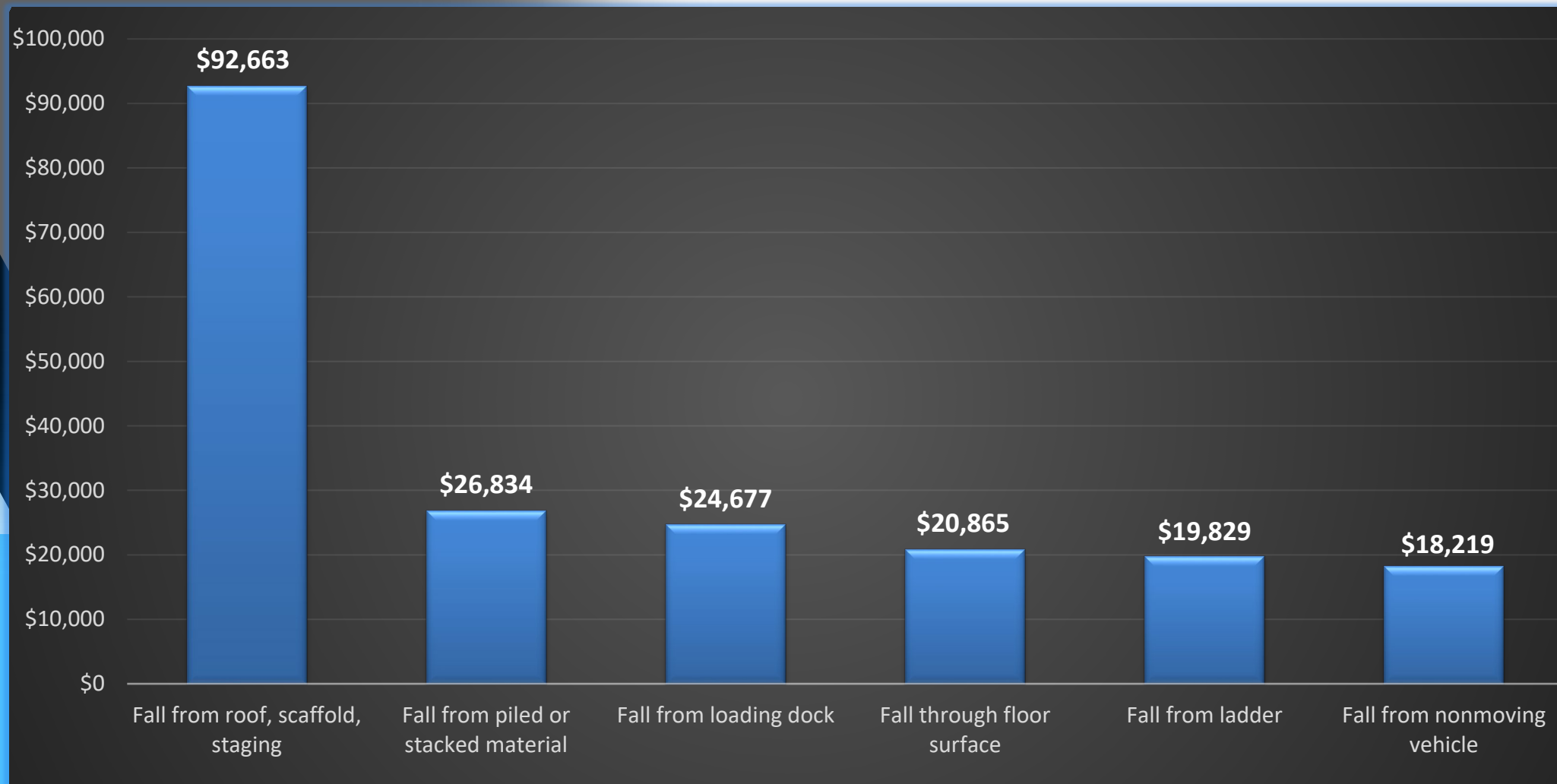
MEMIC Claim Data

Cause of Falls – 2020-2024



MEMIC Claim Data

Average Claim Cost by Cause of Fall – 2020-2024



Where Do Fatal Falls Occur?

How High is DEADLY?

You may not be very high off the ground but if you fall, it could be deadly.

PROTECT your employees, your co-workers, yourself.



Join the Campaign to Stop Construction Falls!
www.stopconstructionfalls.com



CPWR  THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING

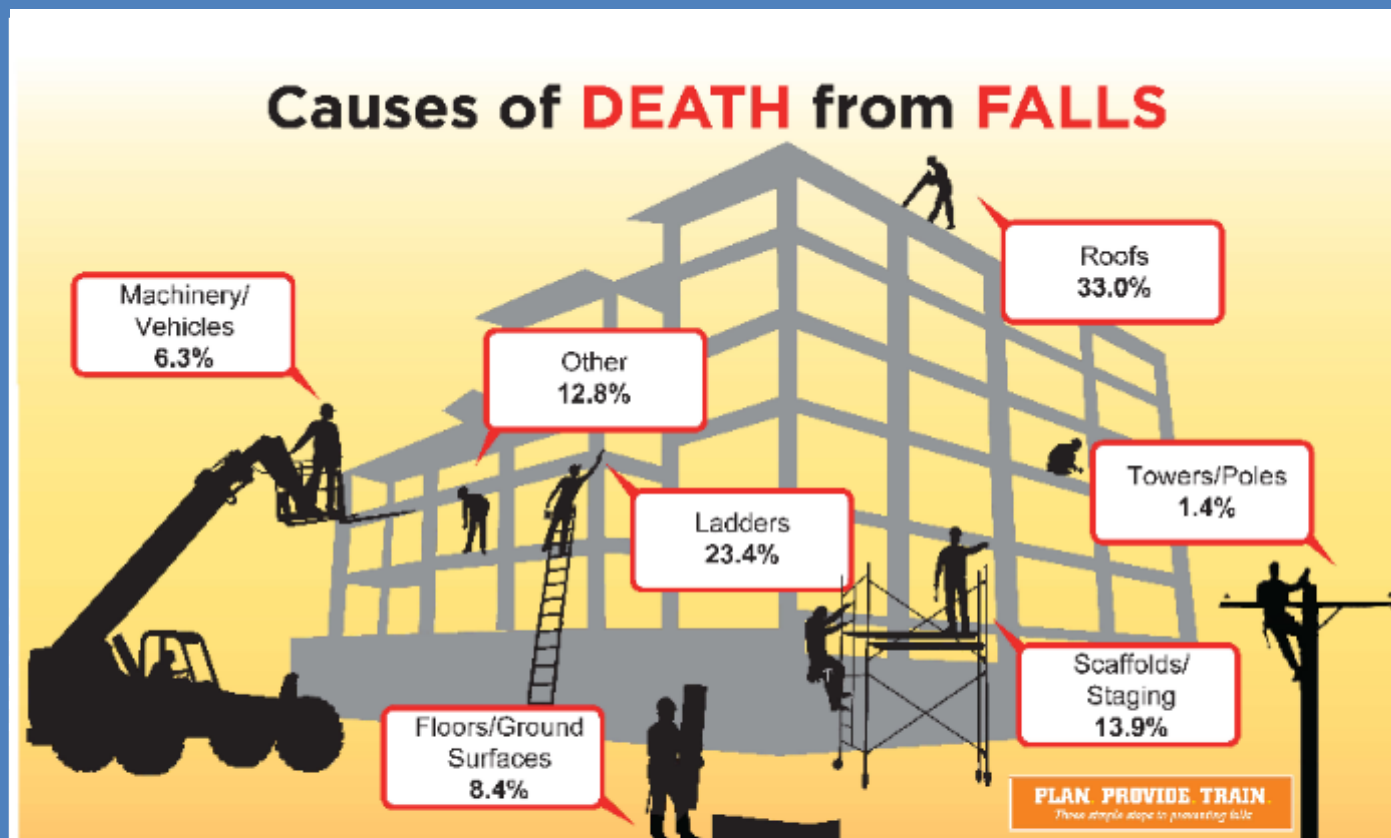


Source: These numbers were calculated by the authors with restricted access to BLS CFI microdata. The views expressed here do not necessarily reflect the views of the BLS.

The National Construction Safety Week 2025 & OSHA National Safety Stand-Down to Prevent Falls in Construction:
May 5 to 9



Where Do Fatal Falls Occur?



**Join the Campaign to
Stop Construction Falls!**

www.stopconstructionfalls.com



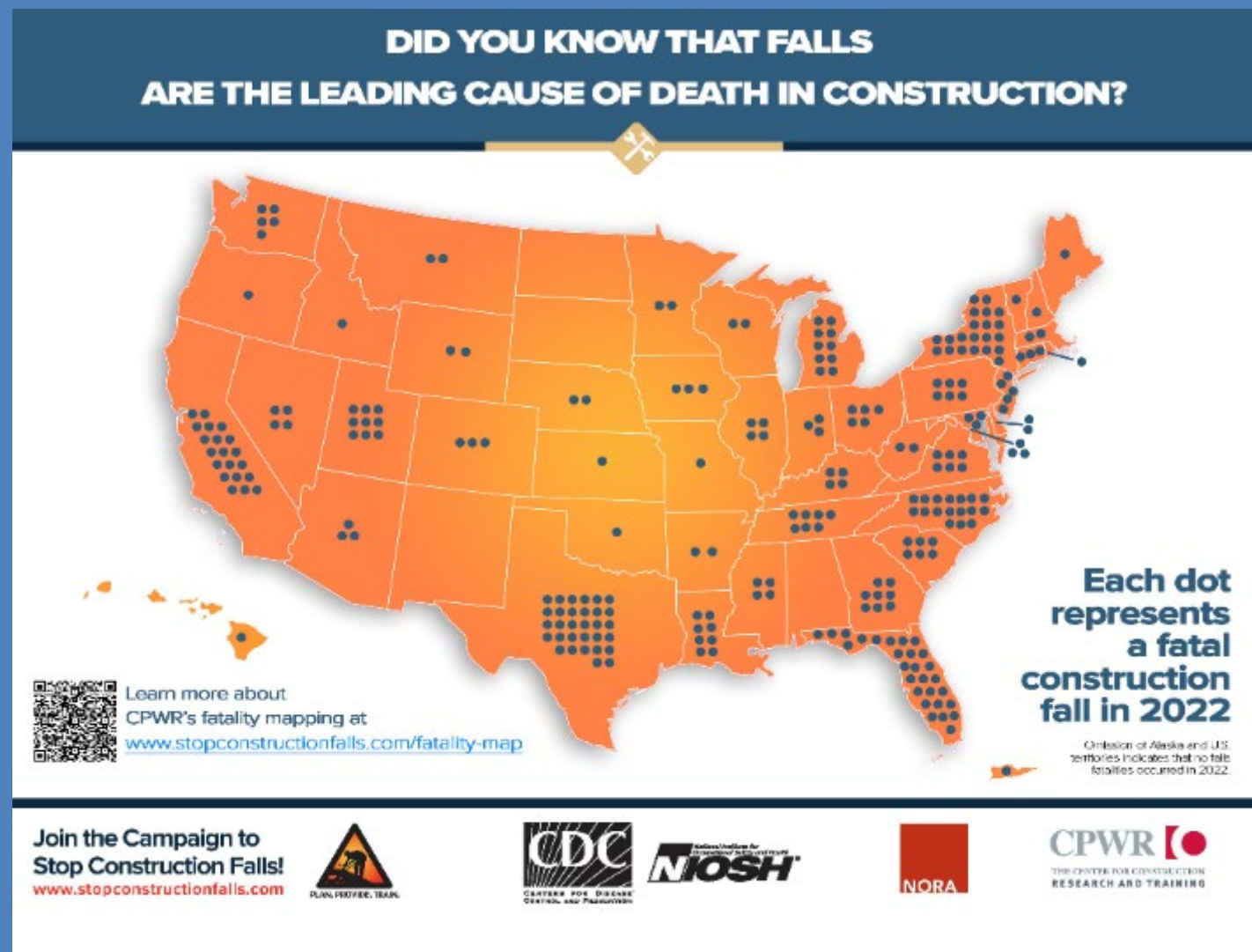
Source: BLS, Special Query: Fatal profile of event Falls to lower level in sector Construction, all ownership (2017).
<https://www.bls.gov/iif/data-requests/fatal-construction-falls-2017.xlsx>
Image Source: Clipart Library. Telephone Pole Cliparts #2924642. <http://clipart-library.com/clipart/1540874.htm>

#StandDown4Safety

March 2021



Where Do Fatal Falls Occur?



A Real Fatal Fact Story



What's the Common Thread?

No matter the industry, task, or height — the common theme is *missed opportunities to prevent the fall.*

Whether it's no training, no equipment, or no culture of enforcement, these incidents are predictable and preventable.





Fall Hazard Assessments

Where Prevention Begins

1 OSHA REQUIREMENT

Formal Identification and Control of Fall Hazards

2 BEGIN HERE

Starting Point of any Fall Protection Plan

3 PROACTIVE ASSESSMENT BENEFITS

Reduces likelihood of injuries, cost of citations and claims

4 GAP ANALYSIS

Identifies opportunities for training behavior modification and supervision





Conducting a Workplace Fall Hazard Assessment

STEP 1



- Identify Tasks Involving Work at Heights
- Ladders, mobile equipment, leading edges

STEP 2



- Inspect Work Areas & Walkways
- Uneven surfaces, slippery floors, unprotected edges, holes

STEP 3



- Review existing controls
- Inspection Schedule
- Guardrails, Safety Nets, Personal Fall Arrest in place?





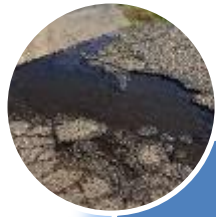
Conducting a Workplace Fall Hazard Assessment

STEP 1



- Identify Tasks Involving Work at Heights
- Ladders, mobile equipment, leading edges

STEP 2



- Inspect Work Areas & Walkways
- Uneven surfaces, slippery floors, unprotected edges, holes

STEP 3



- Review existing controls
- Inspection Schedule
- Guardrails, Safety Nets, Personal Fall Arrest in place?





Conducting a Workplace Fall Hazard Assessment

STEP 1



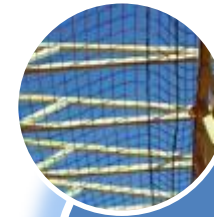
- Identify Tasks Involving Work at Heights
- Ladders, mobile equipment, leading edges

STEP 2



- Inspect Work Areas & Walkways
- Uneven surfaces, slippery floors, unprotected edges, holes

STEP 3



- Review existing controls
- Inspection Schedule
- Guardrails, Safety Nets, Personal Fall Arrest in place?



Fall Hazard Assessment Tools & Resources

- MEMIC Fall Hazard Self-Assessment Tool (link provided at end of webinar)
- OSHA's Fall Hazard Checklist & E-Tools
- Leverage real-world input: incident reports, near misses, and employee feedback
- Integrate assessments into safety committee walkarounds



From Assessment to Action: Your Fall Protection Plan





Fall Protection Training: The Key to Behavior Change

OSHA requires initial and refresher training on fall protection.



Train on equipment selection, inspection, and safe use.



Use real examples and job-specific scenarios.



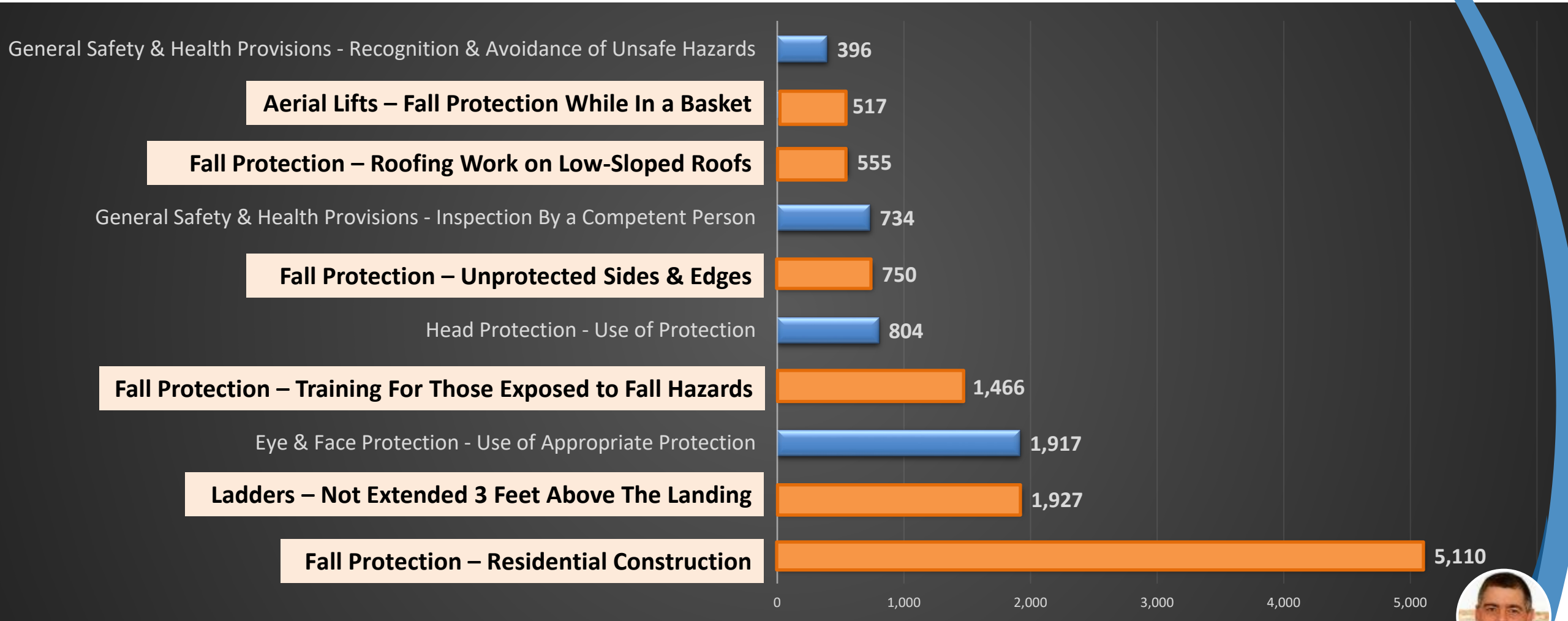
Reinforce training with coaching and peer observations.





Most Frequently Cited Serious Violations in Construction FY 2024

6 of the 10 Violations Related to Falls





Detailed General Industry Citations, 2024

Walking / Working Surfaces

STANDARD	# OF SERIOUS VIOLATIONS
Fall Protection– Unprotected Sides and Edges	319
General – Walking / Working Surfaces Are Kept Clean	227
General – Walking / Working Surfaces Are Kept Free of Hazards	129
General – Workroom Floor Kept In a Dry Condition	76
General – Walking / Working Surfaces Inspected	69





Fall Protection Height Requirements

Fall protection is required at different heights depending on the industry.

OSHA General Industry Regulations

- General Requirements – 4 Ft.
- Fixed Ladders – 24 Ft.

OSHA Maritime Regulations

- General Requirements – 5 Ft.

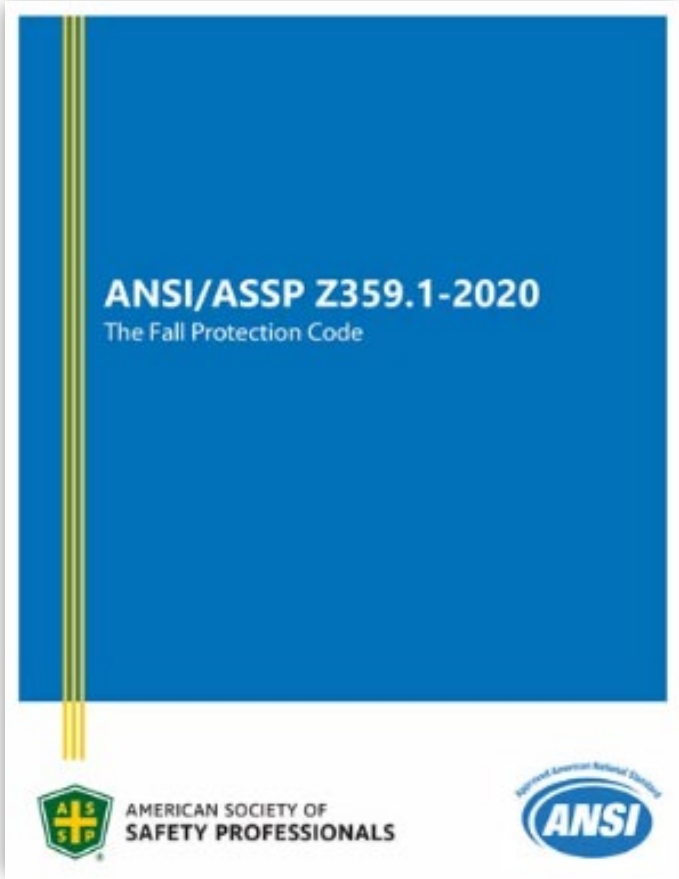
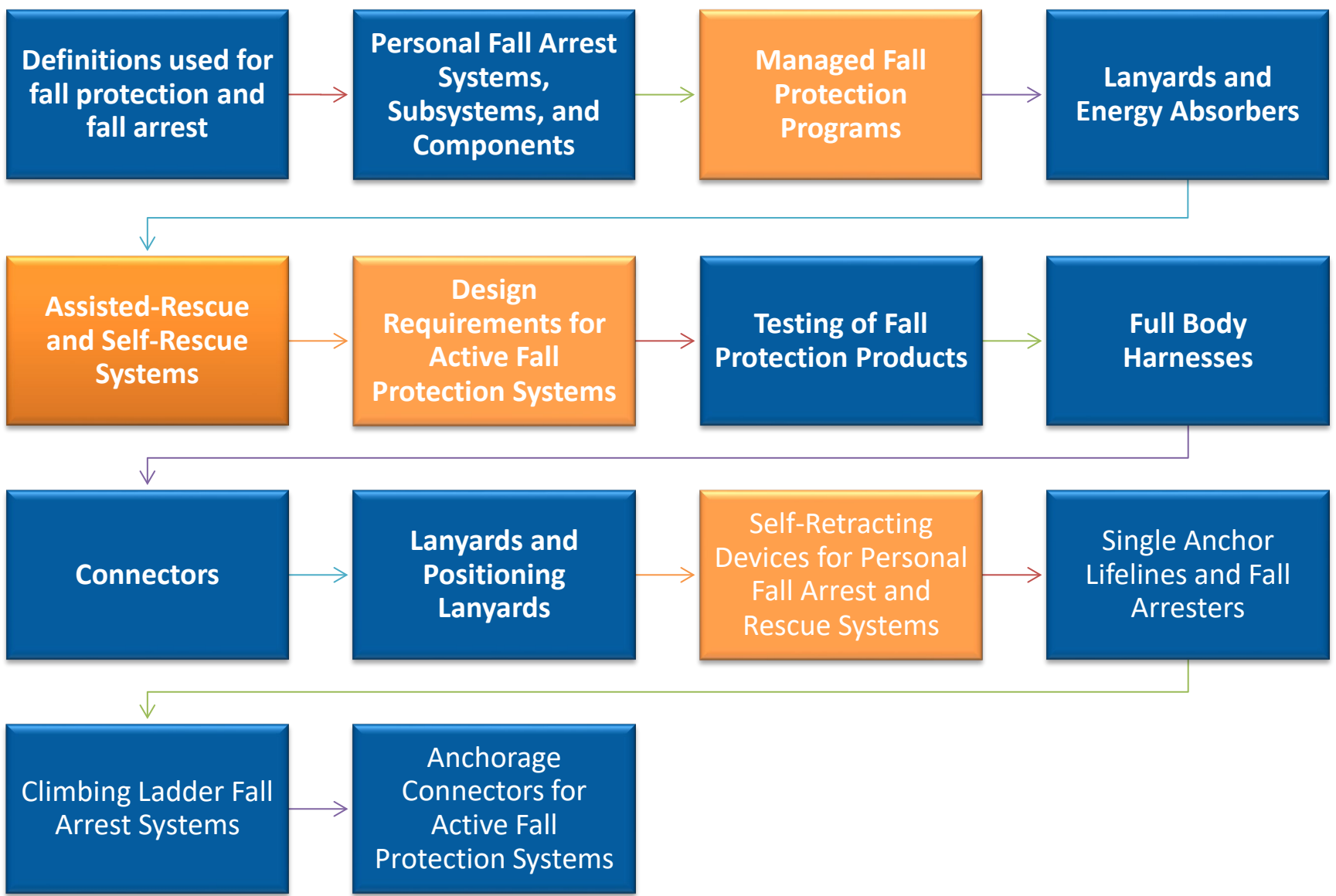
OSHA Construction Regulations

- General Requirements – 6 Ft.
- Scaffolding – 10 Ft.
- Steel Erection General – 15 Ft.
- Steel Erection Connectors – 30 Ft.

Mine Safety and Health Administration (MSHA)

- Safety Belts and Lifelines – 6 Ft.





EMPLOYER REQUIREMENTS:



Assess Workplace for Areas Where Workers May Fall



Create a Written Fall Protection and Rescue Plan



Select & Install Fall Protection Systems



Train Workers



Ongoing Evaluation

- Safe work procedures
- Adherence to program
- Equipment Inspection
- Follow-up Training



HIERARCHY OF FALL PROTECTION

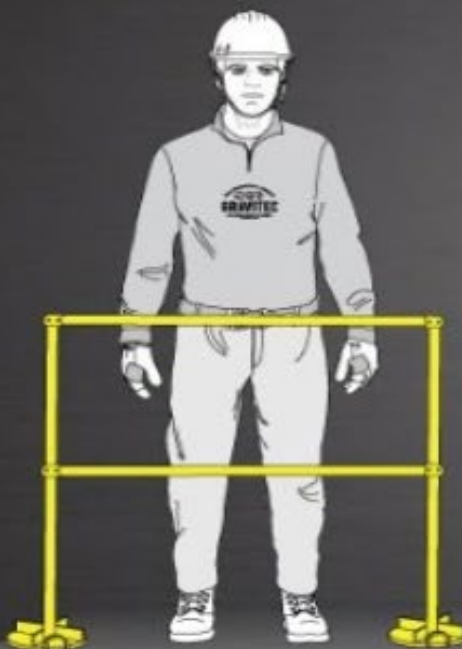
The Hierarchy of Fall Protection is the preferred order of control for fall hazards. As the Hierarchy progresses, so does the risk.

GRAVITEC
SYSTEMS INC.



1 HAZARD ELIMINATION

Preferred solution is to eliminate exposure to the fall hazard.



2 PASSIVE FALL PROTECTION

Physical barriers, like guardrails around unprotected edges and covers over holes.



3 FALL RESTRAINT SYSTEMS

Use personal protective equipment to restrict the worker's range of movement so they cannot fall.



4 FALL ARREST SYSTEMS

Use personal protective equipment to arrest a fall within acceptable force and clearance margins.



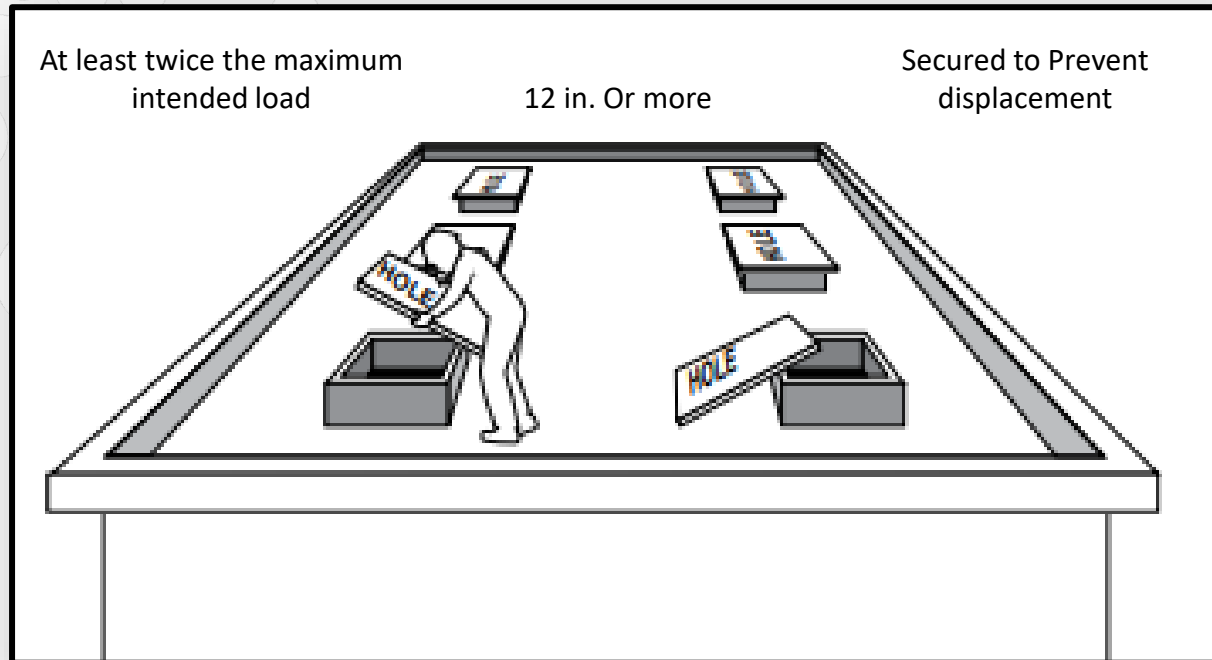
5 ADMINISTRATIVE CONTROLS

Least preferred solution is work practices or procedures that increase a worker's awareness of a fall hazard.

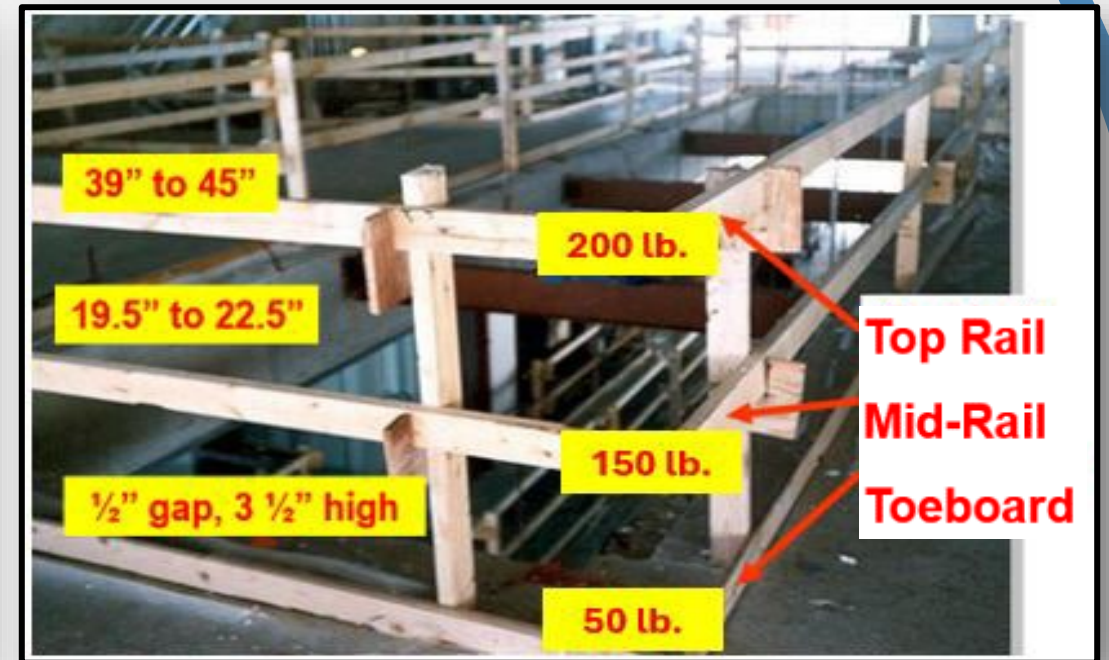


Fall Protection Prevention Strategies

Engineered Solutions



Covers

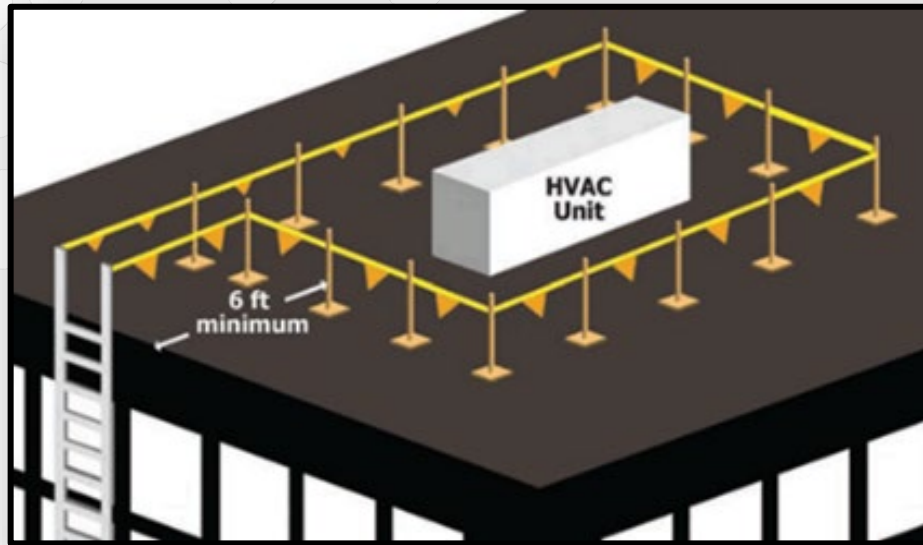


Guardrail System



Fall Protection Prevention Strategies

Administrative Controls



Controlled Access Zone



Warning line / Safety Monitoring Systems



Maintenance & Repair Fall Protection Requirements when Working on Low Sloped Roofs:

Work 6–15 feet from roof edge:

- Use a **designated area** *only if* work is **infrequent & temporary**
- Workers **must stay inside** the designated area
- **No fall protection required** if work is infrequent & temporary
- Must **enforce a written rule**: No one within 15 feet of the edge without protection

Work 15+ feet from roof edge:

- Must use **fall protection** (guardrail, net, restraint system, or designated area)
- **No fall protection required** *only if* work is infrequent & temporary
- Must **enforce a written rule**: No one within 15 feet of the edge without protection

Note:

- **Temporary** = 2 hours max
- **Infrequent** = Once per month or less



Warning Line Requirements

Warns workers to stay away from fall hazards
Consists of ropes, wires, or chain

01 | Placement

General Roof Work - 6 Feet from roof edge

Mechanical Equipment Roof Work - 15 Feet from roof edge



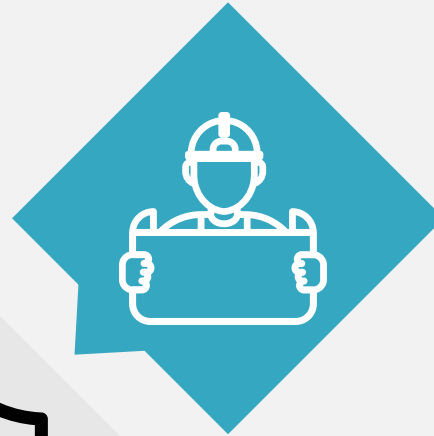
Design & Construction

02

Flagged every 6 Feet

34-39 inches above working surface

Erected around all sides of roof work



03 | Strength

Stanchions withstand 16 pounds of tipping force



Safety Rules

04

Warning line - secure and visible

Trained workers inside warning line

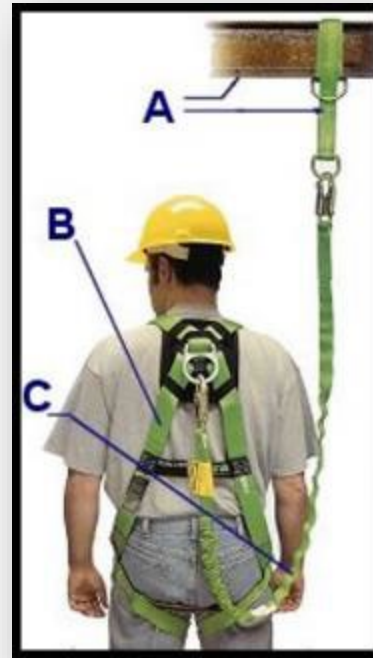
Protection necessary outside warning line



Fall Arrest / Falling Object Protection Personal Protective Equipment



Positioning Device
Systems



Personal Fall
Arrest System



Falling Object Protection



Anchor Points



I-Beam Adjustable Strap



Permanent Roof-top



Non-Penetrating Temporary
Roof Top Anchor

Must support **at least 5,000 lbs. per worker** or be designed and installed under the supervision of a qualified person.



Body Harness



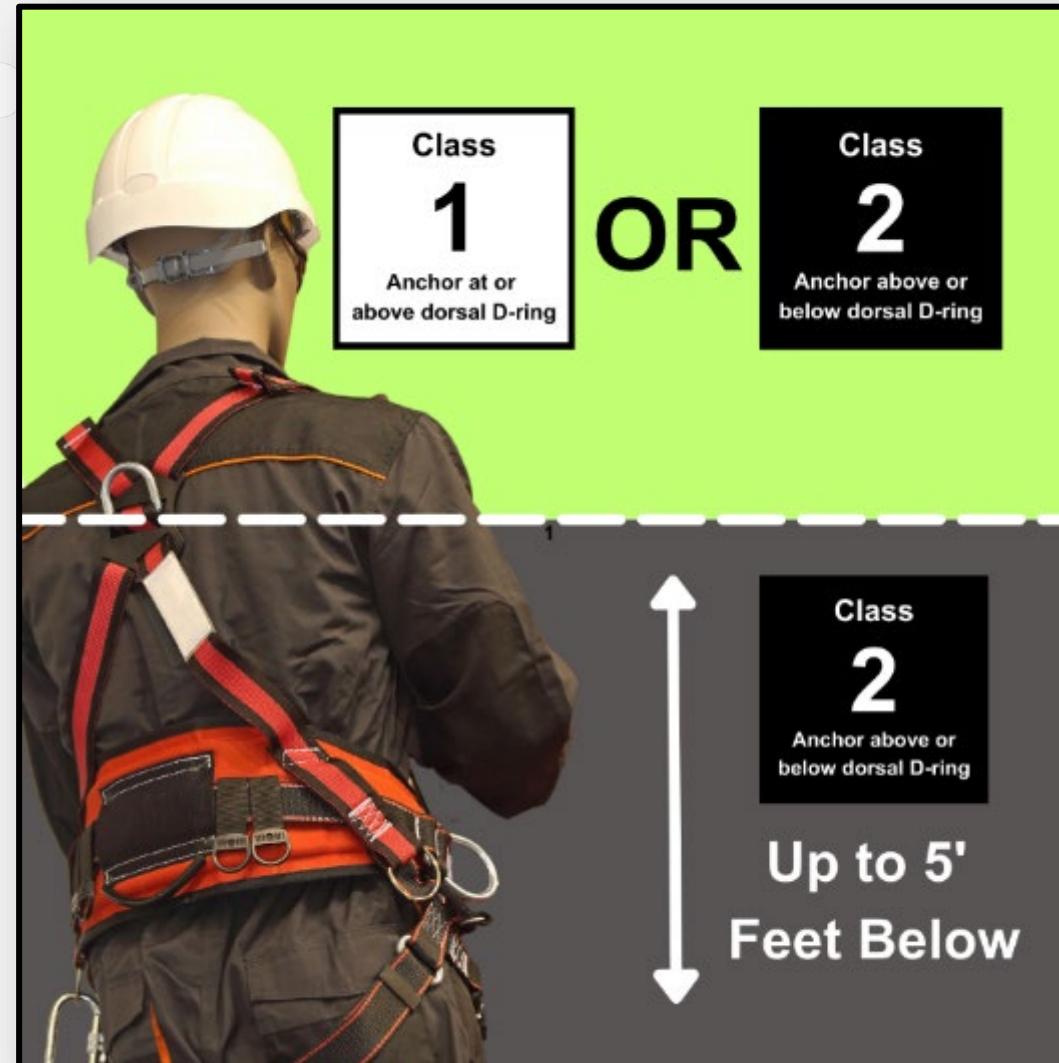
Connecting Devices



- Must have a **maximum arresting force of 1,800 lbs.**
- Free fall must not exceed **6 feet.**
- The deceleration distance must not exceed **3.5 feet.**



Class 1 & Class 2 – SRLs: What is the Difference?



*SRL: self-retracting lanyard



Personal Fall Arrest System Inspection

All gear must be inspected

- Visually – each time prior to use
- Documented – by a competent person in accordance to manufactures guidelines on frequency

Fall protection: How to inspect your full-body harness

Each time, before you use it:

Inspect the labels

All labels should be intact and legible.

Inspect the hardware

Look for damaged, broken, missing, or distorted buckles, eyelets, and D-rings. Release tabs on buckles must work freely and click when the buckle engages.

Annual inspection by a competent person

At least once a year, the harness should be inspected by a competent person other than the user. Record the date and the results of the inspection.

Inspect the Impact indicator

The impact indicator is a section of webbing that is secured with a special stitch pattern. It is designed to release when the harness has been subjected to impact loading from a fall. Prevent any future use by destroying and discarding the harness if the impact indicator is broken.

Inspect the webbing

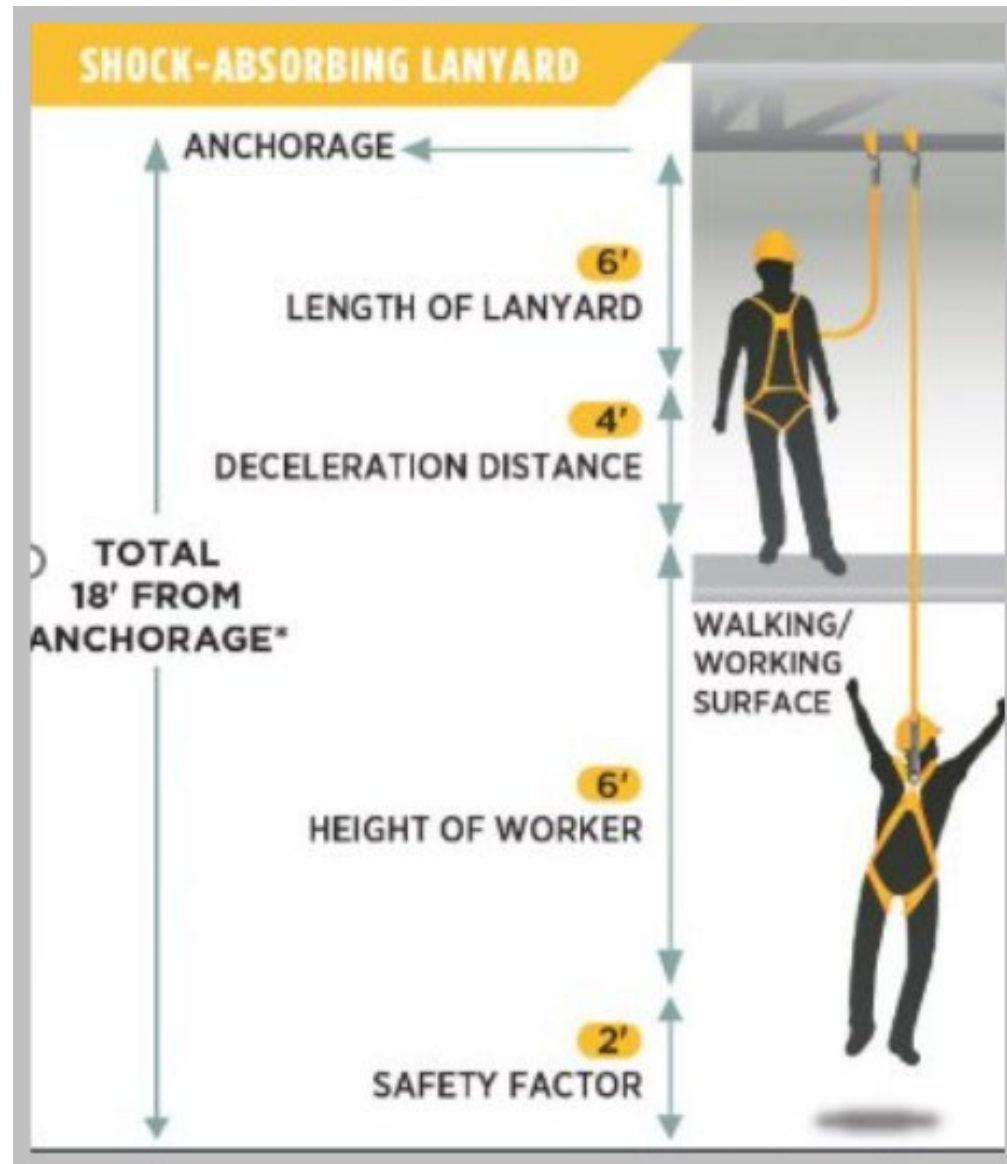
Look for frayed, cut, or broken fibers and stitches. Broken stitches may indicate the harness has been subjected to a fall. Other signs of damage: tears, abrasions, mold, burns, or discoloration from ultraviolet light and corrosive chemicals.

Also

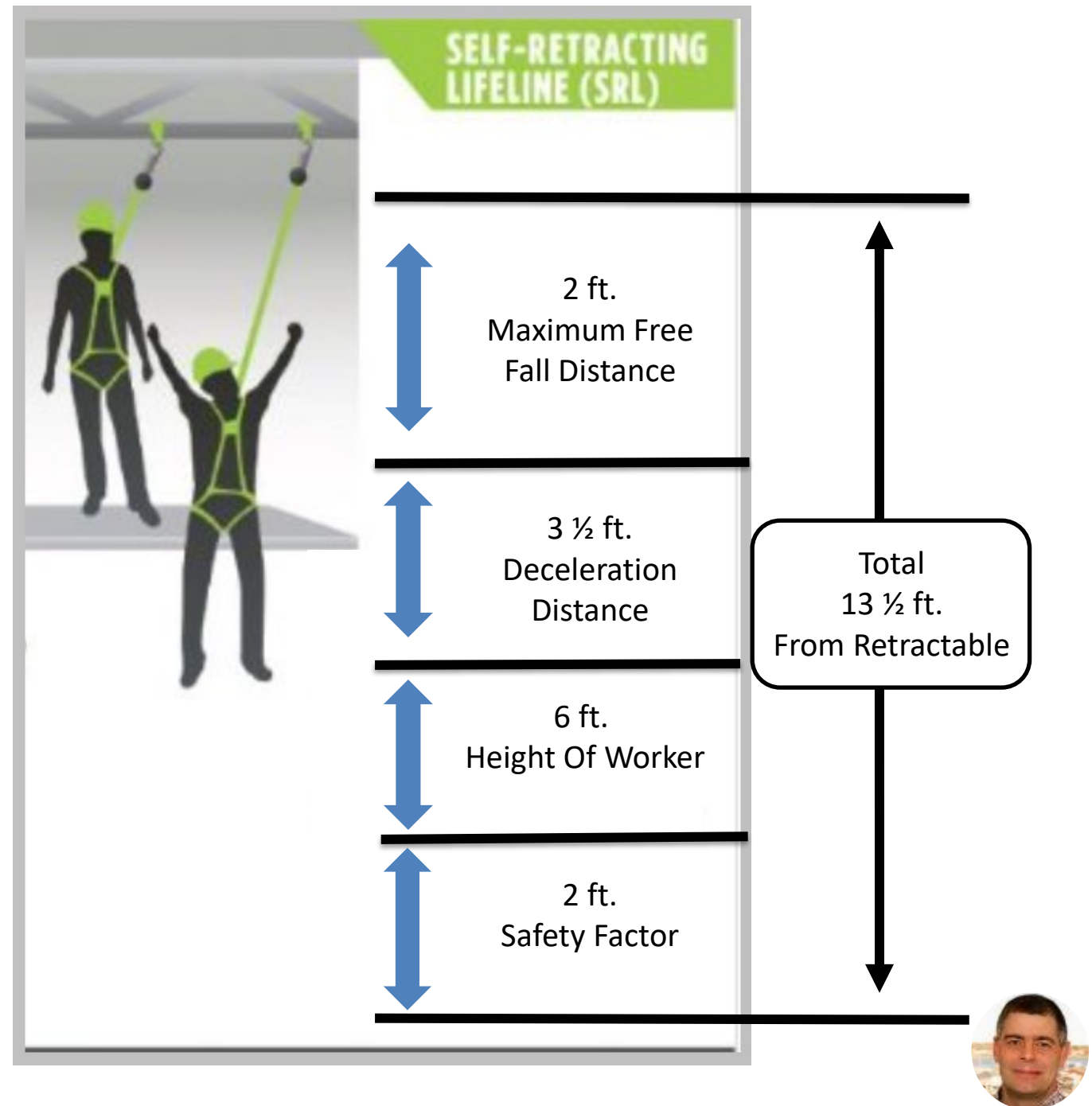
Check the harness manufacturer's inspection recommendations to be sure that you are not missing anything.



Fall Arrest Clearance – 6' lanyard



Fall Arrest Clearance – Self-Retracting Lanyard



Scenario Details

Oregon OSHA's fall distance educator

How far can you fall with a shock-absorbing lanyard? Oregon OSHA's fall distance educator shows you how to calculate your fall distance and your free fall distance with three different scenarios. To keep things simple, the educator assumes:

- You are a six-foot male who weighs 200 pounds
- You are using a six-foot shock-absorbing lanyard with an internal 3.5-foot shock absorber
- The height from your working surface to your back D-ring is 5 feet
- Your shock absorber will be fully deployed after you fall

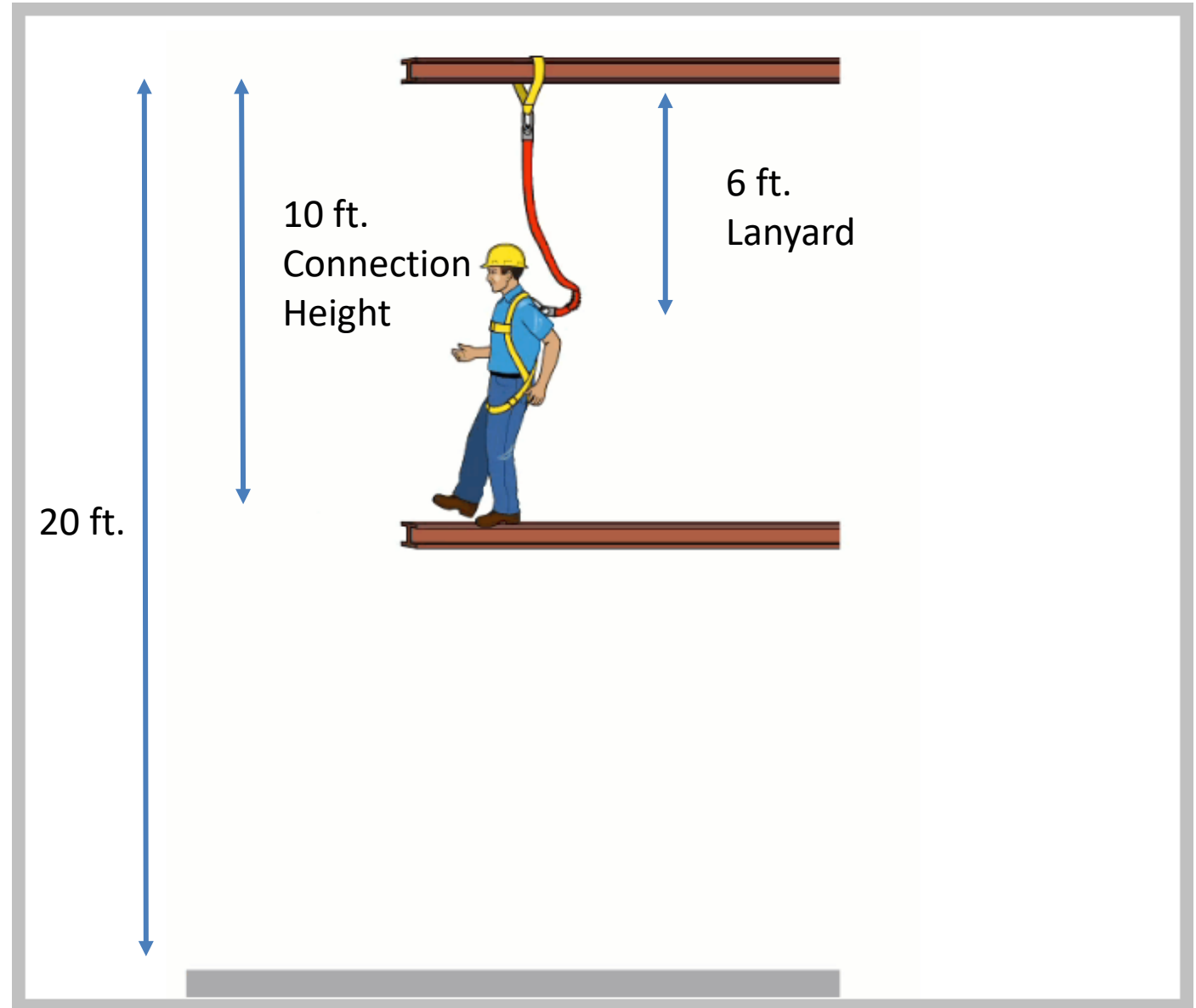
While the scenarios may not represent real-world situations, they will help you understand how far you could fall when you really are using a shock-absorbing lanyard.



Scenario 1

Anchorage Connector is
10 feet above the
working surface.

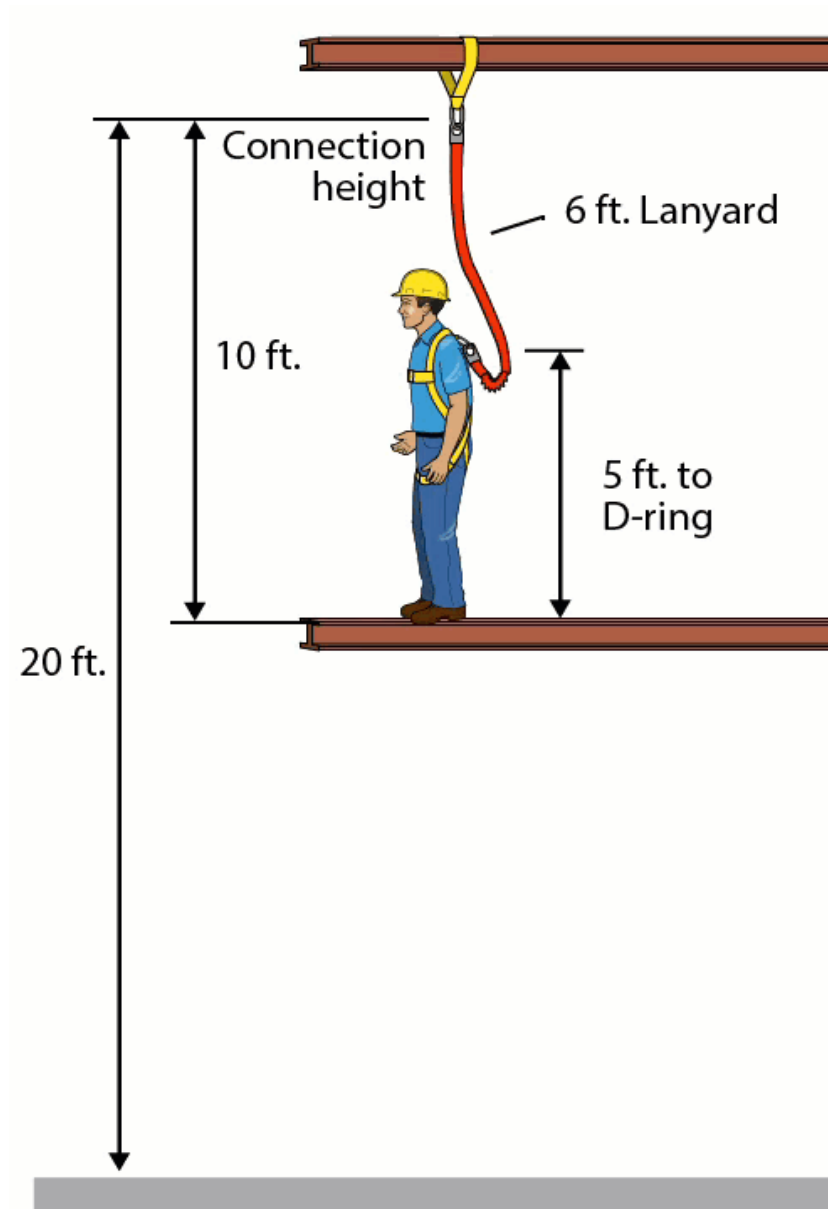
Will he be safe if he
falls?



Scenario 1

Anchorage Connector is
10 feet above the
working surface.

Will he be safe if he
falls?



Oregon OSHA's fall distance educator

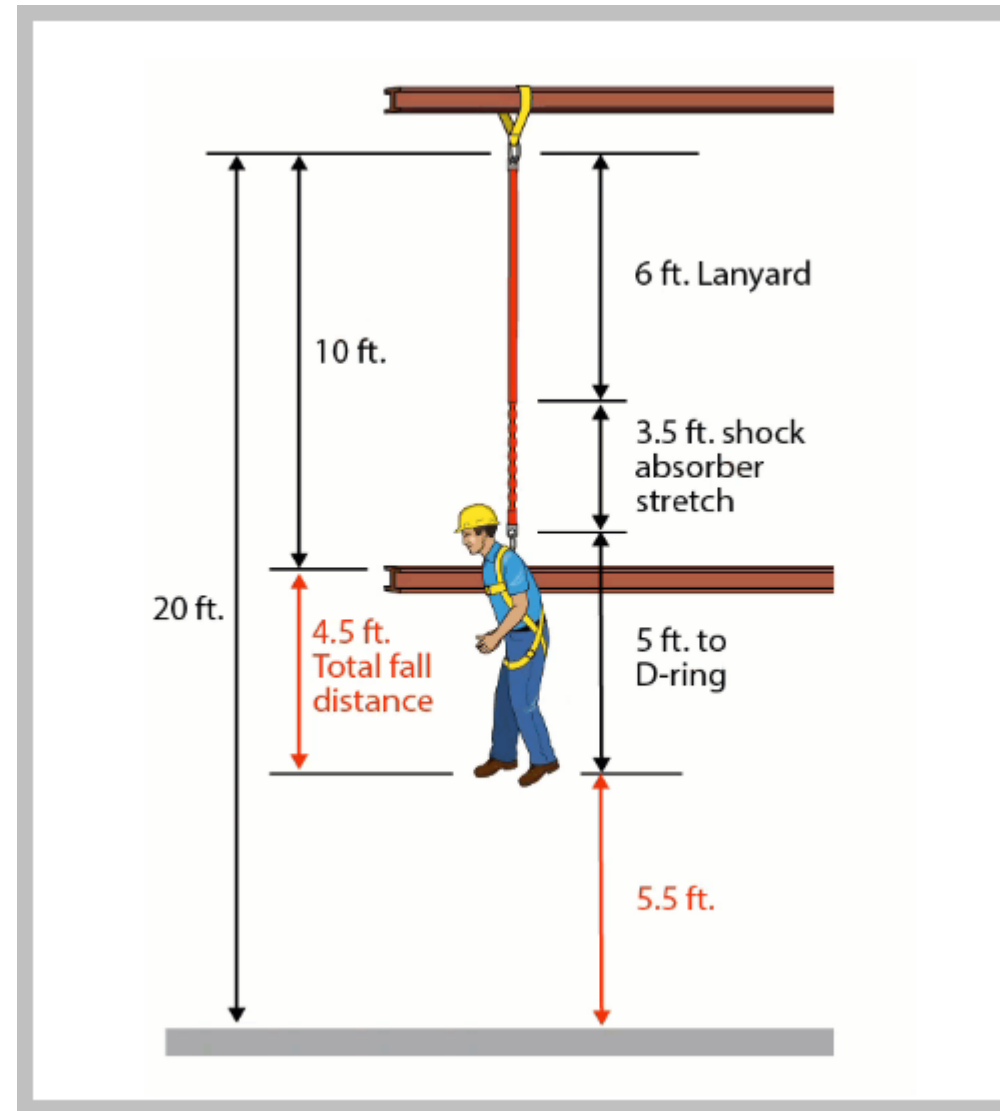


Scenario 1

Anchorage Connector is
10 feet above the
working surface.

Will he be safe if he
falls?

YES!!



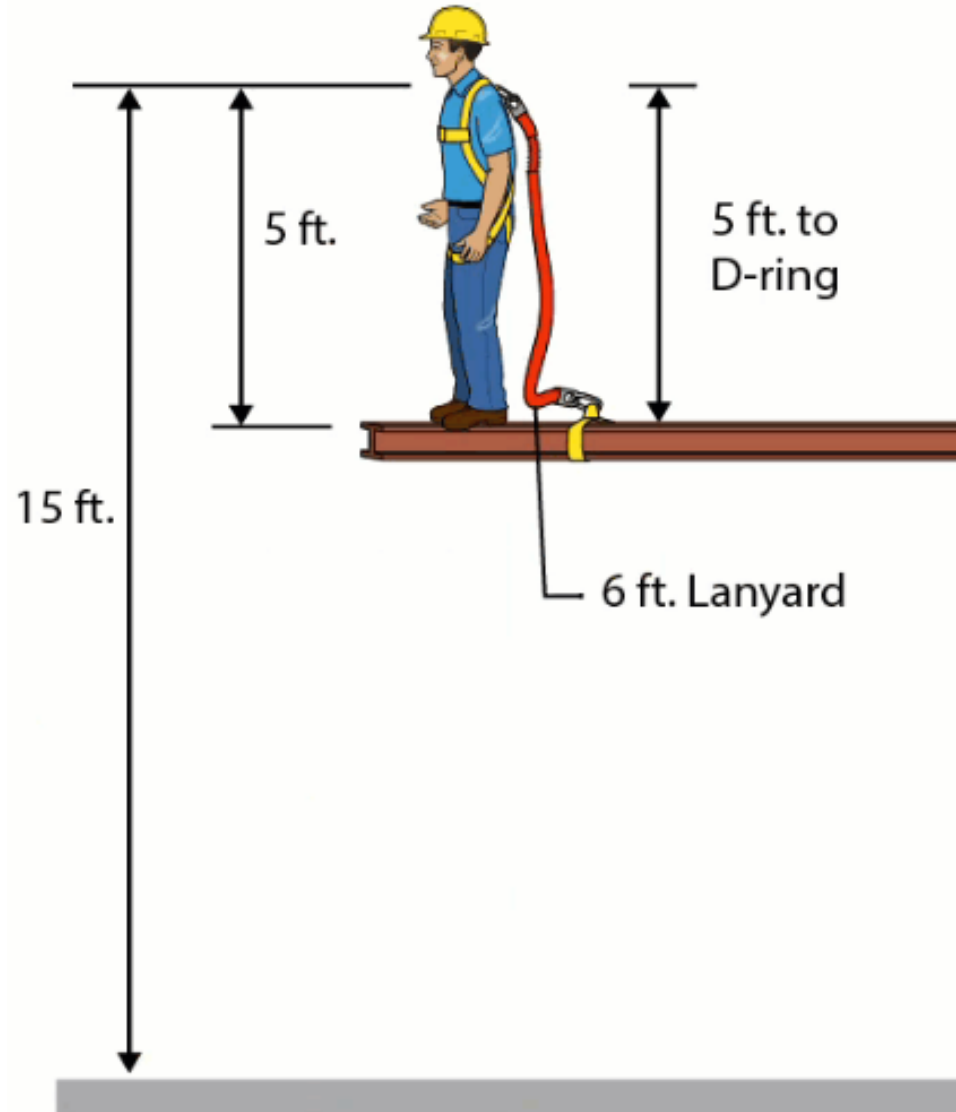
Oregon OSHA's fall distance educator



Scenario 2

Anchorage Connector is at the working surface.

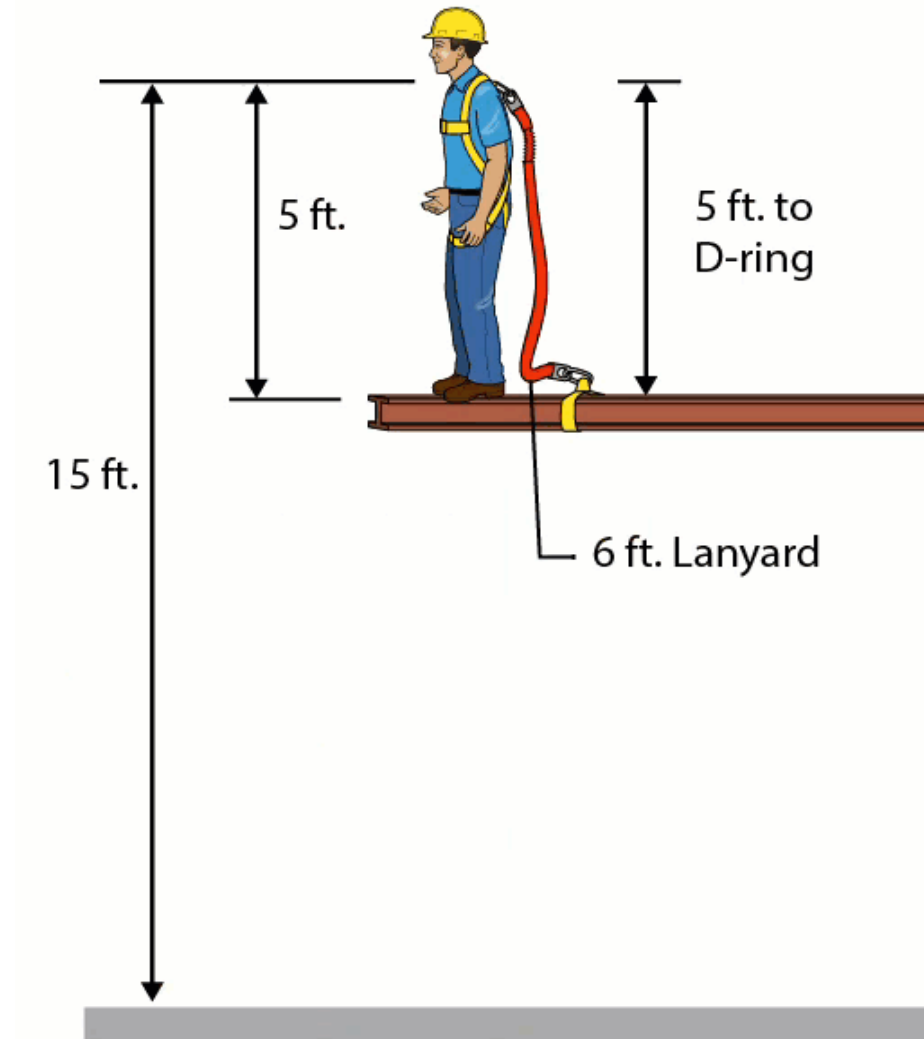
Will he be safe if he falls?



Scenario 2

Anchorage Connector is
at the working surface.

Will he be safe if he
falls?

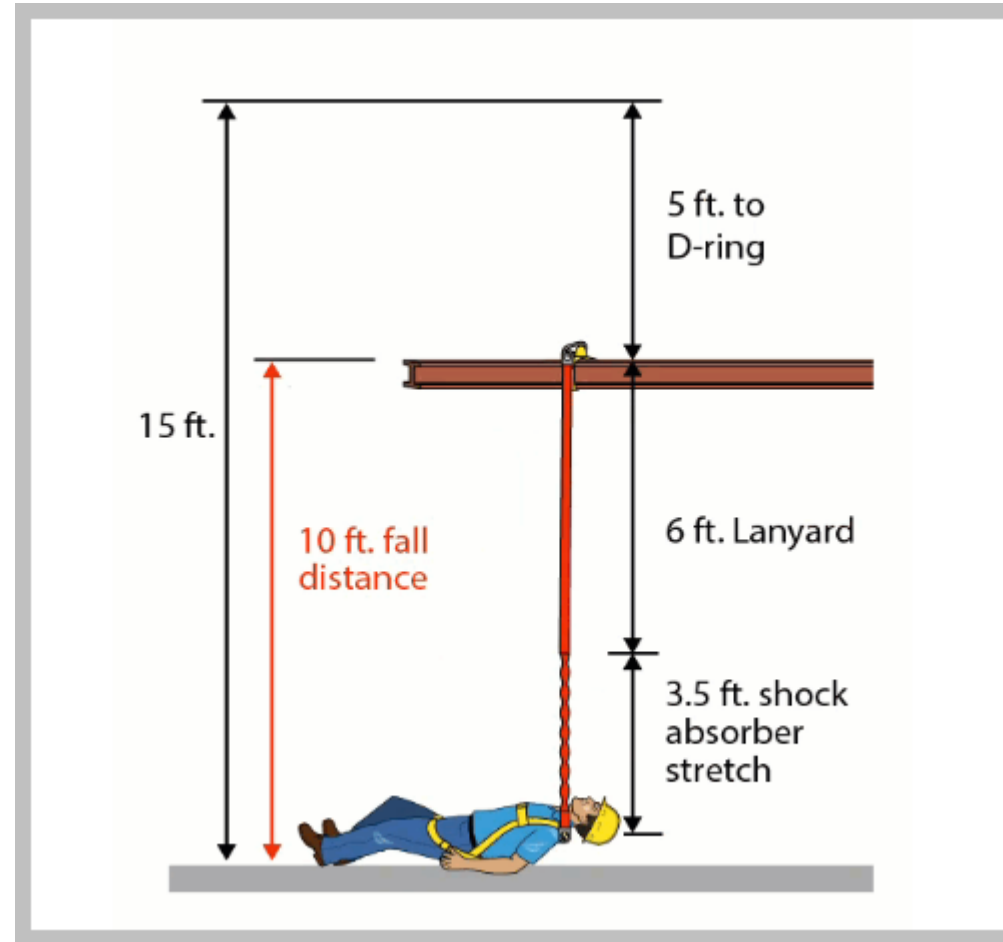


Scenario 2

Anchorage Connector is
at the working surface.

Will he be safe if he
falls?

NO



Rescue Plan



Questions?

Summary

- **Top Fall Risks:** Understand the most common causes of falls across general industry and construction.
- **Standards & Regulations:** Review key OSHA and ANSI fall protection requirements.
- **Hazard Assessment:** Learn how to assess workplace-specific fall hazards effectively.
- **Equipment Limitations:** Recognize the boundaries of fall protection gear to ensure proper usage.
- **System Implementation:** Explore best practices for selecting, implementing, and maintaining fall protection systems.

Q&A



- Use the Chat box to type your questions or share your thoughts.
- Feel free to ask about specific scenarios or challenges you are facing.
- Let us know if you'd like further clarification on any topic discussed.





THANK YOU FOR YOUR PARTICIPATION

MEMIC

TO DOWNLOAD THIS AND OTHER WEBINARS:

<https://www.memic.com/webinar-downloads>

CLICK HERE

You'll Receive a Follow-up Email Which Will Include:

- ? • Responses to all unanswered questions.
- 🔗 • A link to this recording.

