



F5-Fall Protection

Falls

To gain proper understand regarding fall protection, we need to first define what a fall hazard is. If you have ever slipped on ice and fell, you realize that any walking or working surface can be a potential fall hazard. The issue only gets worse as we start working at elevation, which is why we have specific guidelines for that work.

- **Scaffolds:** Must be built by qualified individuals and inspected each day. For the rolling scaffold, Baker/Perry type, you need to have a handrail installed if your platform is 4 feet and higher.
- **Ladders:** A proper ladder must be used for the job. Each location must be assessed to see if an extension, step, A-frame, or other is going to be used. Each ladder has its limits that you need to be aware of.
- **Roof edges, roof and floor openings, leading edges:** Almost all sites have these hazards at some point in their building process. While a slip or trip from the same level is one of the leading causes of injuries, falls from elevation are the leading causes of fatalities. OSHA sets forth requirements in construction that state at 6 feet or more there is a need for fall protection. What are acceptable fall protection systems?
 - **Guardrail systems:** This is one of the best types of fall protection as it prevents you from reaching the edge or opening. This system should be built strong enough to withstand 200 lbs. in a downward direction and have a top rail from 45-39 inches. A mid rail is also required.
 - **Fall Restraint:** This does not allow you to reach the edge or opening because of your limits of access. The rope grab or similar is restraining you from the edge. It requires that you have a system in place of the following: anchor point, suitable restraint line, and a harness. All should be inspected before use.
 - **Fall Arrest:** This would be the least desirable of fall protection systems. It still requires that you have a system in place of the following: anchor point, suitable restraint system and a harness. All should be inspected before use. You also need to have a rescue plan in place. Is it a ladder, a MEWP, a self-rescue system? It **CANNOT** be that we are going to call the fire department. The trauma that comes from a fall cannot wait for a plan to be made when a fall happens.

Take a look at your site and home. Where are there fall hazards and how are you protecting yourself and family from them?

Let's review 4 key requirements for fall arrest systems:

- 1) Body Harness: The fit must be correct for the system to work. Straps should be snug, not overly loose or too tight. The ring should be centered on the back at the shoulder level.

- 2) The system must be rigged so that an employee can neither free-fall more than 6 feet nor contact a lower level. After the free-fall distance, the deceleration or shock absorbing component of the system must bring an employee to a complete stop within 3.5 additional feet.

- 3) The anchorage point must be capable of supporting at least 5,000 pounds per employee. This eliminates most guardrail systems.

- 4) The system components must be inspected for damage and deterioration prior to each use. All components subjected to the impact loading forces of a free-fall must be immediately removed from service. For example, red showing on Yo-Yo connector.

CONSEQUENCES OF A FALL

The physical result of the fall can be life changing.

- Fractures
- Strains Sprains
- Muscle Tears
- Injury to your head/brain
 - o Changes in personality, vision, memory, social behavior
- Death

What influences the type of injury?

- Distance of the fall - *momentum and velocity effect the impact on your body.*
- The angle of the body at impact - *we can glance off objects,*
- The obstacles the body strikes - *what if you fall on railings, steps, or vehicles?*
- The surface eventually landed on - *broken concrete & re-bar?*

What You Can Do: PLAN and THINK!

- Help remind your co-workers to play it safe and avoid taking risks.
- Report unsafe conditions to the nearest supervisor.
- Make it a habit to work safely, regardless of time pressures and productivity goals.
- Practice caution at home; accidents and head injuries from falls happen more often off the job than at work.
- Know how to use fall protection and fall restraint equipment. Never say, "I don't need to fool around with that stuff, I'll only be up there a minute."

Discuss near misses with crew to increase lessons learned.

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