



Five Ways to Fall from Elevation

The top 10 OSHA violations are overly represented by elevation-related concerns. Do you know how to protect yourself?

OSHA sets a relatively low bar for safety in high places, yet many employers fail to meet even that standard of safety. You may be among those fortunate enough to work for an employer who meets OSHA requirements or even goes beyond them. However, whether your employer does or not, it is up to you to literally not fall down on the job.

Consider these five ways in which people unexpectedly undergo a rapid change in elevation.

1. **Ladder lateral reach and fall.** This is arguably the most common way to have a negative encounter with gravity while on the job. Map out the work before putting the ladder in place. Target a particular spot on the wall and then on either side of it mentally draw a vertical line over which you will not reach. This line should be about half the length of your arm. The space between these lines forms your "work area box." If you plan your work properly, you will complete it in a series of these boxes. Before going from one box to another, descend the ladder, set the ladder in the middle of the new box. secure the ladder. then ascend the ladder.
2. **Aerial lift tip-over.** When you're doing elevated work that requires moving along a busway or other high area, don't try to save time by simply jogging the lift a few feet. lower the platform, retract the outriggers, relocate the lift, set the outriggers again, and then raise the platform. Another way people tip aerial lifts over is by setting force against the width rather than against the length.

For example, you need to lift a box into place. The force required to move it means an equal counterforce in the opposite direction; this will make the platform sway. If the platform is 3 ft wide by 10 ft long, it's going to be a lot harder to tip against that 10 ft dimension.

3. **Scaffolding scramble.** The safe assembly of scaffolding does not require an advanced degree in physics. It merely requires knowing and following the rules. Yet, OSHA citations for scaffolding violations continue to rank high in each year's OSHA violations tally. This means you need to assume scaffolding is unsafe. Always give it a basic visual inspection



before ascending it. Even properly assembled scaffolding will fall if it's on a poor base. Make sure it's on something solid and it is level; no leaning Tower of Pisa for you!

Then look for the cross-brace connectors; do these have cross braces connected? Finally, look at how the platform is secured (or if it even is). A loose board can slip out one end or tip on its side. If you routinely use scaffolding, get the training to become a "qualified worker" so you can give that scaffolding an expert inspection before using it.

4. **PPE plummet.** It might be a good idea to think of **PPE** as **LRE**: Last Resort Equipment. If it's the last thing between you and death, it had better be in good enough condition to do its job. But often it's not, and people who think they are protected aren't. Safety harnesses and lanyards are made from woven fibers, and these go bad over time. They also become critically weakened after repeatedly being subjected to the high stress of a fall. Don't replace these as necessary; replace them before it's necessary.

Another area of fall protection failure with PPE is how it's used. Clipping your lanyard to a process pipe (e.g., wrapping the lanyard around the pipe and clipping it into a loop) instead of to a lanyard eye is just asking for trouble. Know where to clip before ascending.

5. **Balance battle.** Even without being at elevation, losing your balance can result in severe injury. To avoid loss of balance, wear serviceable shoes, not ones with badly worn soles; consciously counteract head-forward posture, hunching over instead of standing straight; don't lift or carry things in a way that puts you off balance; and keep the work area free of clutter. Do daily exercises to correct head-forward posture if you are doing things like using a computer or phone every day that exacerbate it. And ask for help or use a device if you need to when lifting or carrying things.

Working at elevation involves many other kinds of dangers beyond just these five. But if you are alert to these five with each elevated job, your mind will be primed to perceive other dangers. If you correct the hazards, you will be able to come to the ground when you choose and at a much slower speed than otherwise.