

TOOLBOX TALK #39

AFTER A FALL FROM HEIGHT

What are the health risks associated with a post-fall condition? How can fall protection harnesses mitigate these risks?

When working at height, fall protection equipment can be viewed as an insurance policy that you wear. The right fall protection equipment can mean the difference between life and death, making equipment design and functionality critically important. Traditionally, fall protection equipment is designed to stop a fall, but not all equipment is designed to perform in a post-fall situation. After a fall, many users find themselves hanging upright and motionless while awaiting rescue. This post-fall position often constricts blood flow and can result in loss of consciousness – otherwise known as suspension trauma. The presence of pre-existing injuries, environmental pressures and increased user stress can all accelerate suspension trauma. This can result in a serious or fatal injury within 30 minutes of an incident. To mitigate these risks, fall protection harness manufacturers are now designing products specifically built to protect users in a post-fall condition and increase their comfort.



For example, new fall protection harnesses on the market feature additional handles on the back of the leg straps that allow users to, with their thumb or four fingers, shift their weight into a “chair in the air” position, resembling a seated pose. This permits better blood flow by relieving pressure on the femoral arteries, reducing stress on the groin area and lessening the risk of suspension trauma. Often, these added handles are easily distinguished from the rest of the harness with bright coloring. A major benefit of using these handles to shift the suspended user’s position is that it allots more time for a successful rescue. A safe rescue process can become compromised if the user is experiencing suspension trauma, putting the rescue workers and the user in danger. The implementation of these handles and the “chair in the air” position are part of a larger industry focus that aims to increase safe suspension time for users, and in turn, give rescue workers the necessary time to execute a safe rescue.

One of the major factors drawing attention to the post-fall condition is OSHA’s annual “Top Ten List” of most-frequently cited standards. With Fall Protection, General Requirements at No. 1 and Fall Protection, Training Requirements at No. 8 on the most recent list, the agency has ushered in a new era of fall protection importance and awareness. OSHA also recommends that, as an essential component of fall protection training, all professionals using fall protection equipment be educated on suspension trauma, how to recognize it in others, and how to reduce their own risk. Many new fall protection harnesses also feature innovative designs that address other issues of discomfort in a post-fall condition. For example, industry-leading harnesses now feature a chest strap that can slide unobstructed along the front webbing of the harness post-fall to remove pressure on the neck and throat, along with adjustable back padding to help relieve pressure on the collarbone. Both changes make it easier to breathe and help users remain calm while hanging in suspension.

When using fall protection equipment, end-users and employers should consider how their gear will protect a worker in a post-fall condition. The industry now has more options than ever for improving user comfort, enhancing safety and helping workers make it home safely at the end of the day.