



## Suspension Trauma

Fall protection is vital to those who work at heights. You and your workers need to know what to do if a fall occurs.

Fortunately, there are safety devices that can save lives such as fall arrest systems, but the use of this system may also cause a hazard known as suspension trauma. In the event of a fall, the fall arrest system keeps the worker suspended in an upright position, with legs dangling. Remaining in this position for a long period can lead to orthostatic intolerance or pooling of blood in the legs, and deprive the brain of oxygen causing the worker to faint. Because the worker cannot fall to a horizontal position and normalize blood flow, serious health problems, even death, can occur.

Safe, prompt rescue is the key to preventing suspension trauma. During the rescue, care should be taken to slowly put the victim suddenly back into a horizontal position; otherwise deoxygenated blood can flow back into the body (reflow syndrome) and cause damage to the organs, brain, and even causing the heart to stop.

The warning signs of suspension trauma are:

- Faintness.
- Nausea.
- Dizziness.
- Sweating.
- Paleness.
- Narrowing of vision.

Certain factors can also contribute to the risk of experiencing suspension trauma, such as:

- Weather conditions.
- The onset of shock and injuries sustained during your fall.
- Blood loss.
- Overall health.

Safety precautions can reduce or eliminate suspension trauma. One way of reducing suspension trauma is to pump the leg muscles by relaxing, straightening, and pulling them up to a sitting position. Performing these exercises can be very difficult after a fall; consider adding foot straps to the fall protection gear.

Some additional suggestions to keep in mind:

- Train workers on the rescue procedures for suspension trauma and how to avoid reflow syndrome.
- Have a plan in place to rescue suspended workers quickly and get them immediate medical attention.
- When rescuing a suspended worker, do not lay him or her flat into a horizontal position; keep the person sitting up with their legs straight out in front of them.
- After a rescue, keep the worker calm and monitor them so s/he does not faint and fall into a horizontal position.
- Get a rescued worker immediate medical attention and ensure that medical personnel are aware of the possibility of suspension trauma.

Don't leave your fall protection plan hanging. Learn proper prevention and prompt rescue techniques to prevent suspension trauma.

*This article is intended for informational purposes only. It should not be used as a basis for medical diagnosis or treatment.*

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