

Longshore Safety Tip

June — 2024

Suspension Trauma Safety Straps

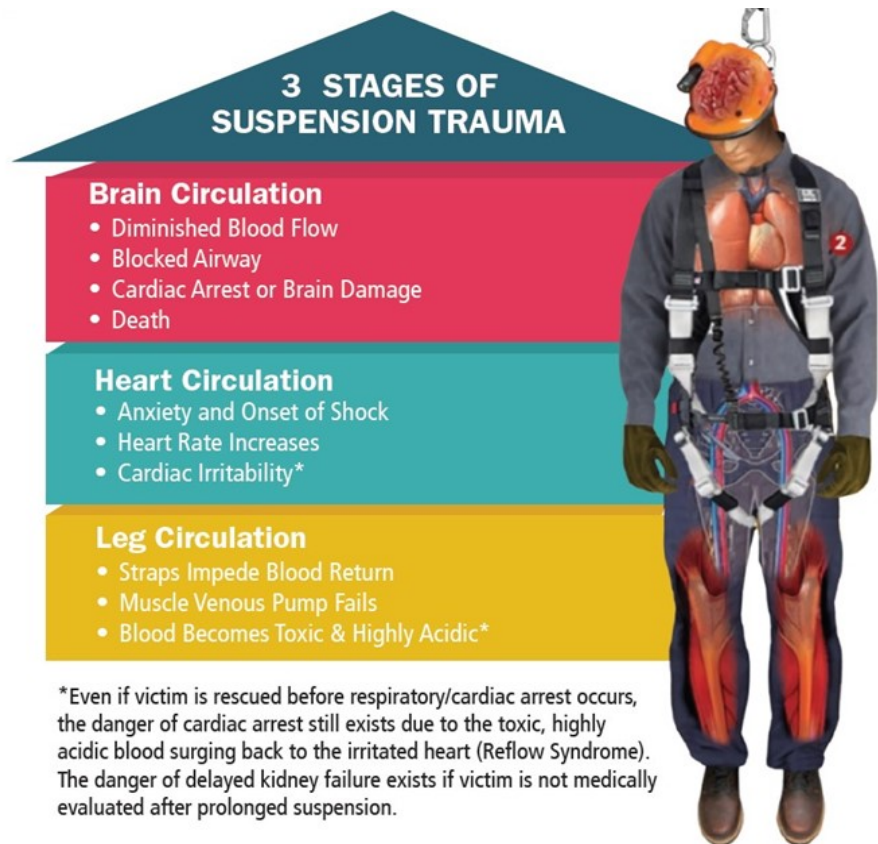
Suspension Trauma Safety Straps are being introduced into the longshoring industry following the adoption of the new 2022 Pacific Coast Marine Safety Code by the ILWU & PMA Employers.

PCMSC Rules 344c, 1051c, 1515c: Only a full body harness with suspension trauma safety straps shall be used.

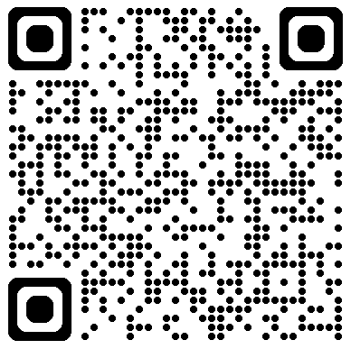
Preventing Suspension Trauma

Traditional fall arrest gear is only the first step in preventing injury or death. Even if the arrest does not cause injury, a fallen worker can die from suspension trauma (orthostatic shock) if not rescued in time.

Following a fall from height, the first personal protective equipment (PPE) used to protect workers is fall arrest gear. Fall arrest gear includes a fall protection harness and attached lanyard system that is used to connect a worker to an anchor point. With this gear, should the worker fall, the energy of the fall is absorbed by the lanyard and the worker is prevented from falling to the deck. After the fall has been stopped, the longshore worker is still left suspended in their fall protection harness until rescued. During this time hanging, suspension trauma / orthostatic intolerance begins to set in.



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What is Suspension Trauma?

Suspension trauma, also known as orthostatic intolerance, occurs after a worker has fallen into a fall arrest harness and is suspended in a hanging position until rescue arrives. During this time, the leg straps of the fall protection harness crush the femoral arteries on the inside of the legs, cutting off blood circulation.



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Prolonged Suspension from fall arrest systems can result in serious physical injury, or even death in less than 30 minutes.

Suspension Trauma Safety Straps.

In the event of a fall, Suspension Trauma Safety Straps allow suspended workers to stand up in their harness and to relieve the pressure being applied to the arteries and veins in the legs. A continuous loop design allows both sides of the harness to relieve pressure being applied to the legs. Trauma straps accommodate either having one foot or both feet in the loop at a time. Safety straps are typically packaged in pouches that attach to each side of a harness.

Trauma straps are a pair of straps, one with hooks in it and the other with loops for the hooks to attach to. They are coiled up in pouches and attached to the fall harness at the hips. When a worker falls and comes to rest, they would uncoil the straps, hook them together, and brace his weight against the straps. This allows the fallen worker to stand up in his fall harness, utilizing his leg muscles, taking weight off of his arteries, and restoring blood circulation.



Before a Fall—Inspection

Prior to donning fall arrest gear, workers should inspect their gear and suspension trauma safety straps for any frays, cuts, burns, or any other damage. If found, workers should notify their supervisor immediately and not use the PPE.

After a Fall

Suspended workers should deploy their suspension trauma safety straps as illustrated below.

If the straps cannot be deployed, the worker should try to keep their legs moving and try to keep their head and legs as close to horizontal as possible.



USE:

1

Unzip Trauma Strap pouches fitted on both sides of the harness.



2

Connect the strap end to the ring end, and ensure strap buckle is fully locked and secured.



3

Put your feet into the loop that you have made.



4

Stand on the loop and examine pressure on thighs.



5

Adjust strap as necessary to accommodate your height.



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