

Suspended Workers Prompt Rescue Required

Trauma Suspension U.S. Department of Labor Directive

The following information is paraphrased from the U.S. Department of Labor OSHA division Safety Bulletin SHIB 03-24-2004 Updated 2011. You can download the complete article from the OSHA website.

The cited bulletin above is not a new standard or regulation but is advisory in nature. Pursuant to the OSHA act, employers must comply with hazard-specific safety and health standards. Section 5(a)(1), the General Duty Clause, requires employers to maintain a safe workplace for their employees that is free from hazards that could cause serious injury or death. Training employees to identify hazards and how to avoid or mitigate them is the best line of defense.

Suspension Trauma Hazard

When a person wearing a full body harness (FBH) falls and is suspended, an accumulation of blood in the legs reduces the amount of blood in circulation. The body's normal reaction is to speed up the heart rate in order to maintain blood flow to the brain. If suspension continues, the body will abruptly slow the heart rate and blood pressure, resulting in fainting. Vital organs, such as the kidneys, are very sensitive to blood oxygen and can be damaged. Prolonged suspension will lead to serious injury and may result in death. Volunteers testing suspension trauma experience excruciating pain in less than 10 minutes.

Recommendations

Research has shown that prolonged suspension in a FBH will result in serious physical injury, and death in less than 30 minutes. However, the individual's body mass and tolerance to pain are factors that cannot be predicted, but are known based on suspension tests using live persons.

Rescue

Employees exposed to free fall hazards should be fitted with a suspension trauma rescue device and trained in its use by demonstrating how to attach a device to a FBH and how to deploy the device while suspended.

OSHA Standards

29 CFR 1910.132, 29 CFR 1915.159, 29 CFR 1926.503.

Warning: Employees that work alone are more likely to experience death due to suspension trauma. If they suffered a head injury during a fall or passed out, they may not be able call for help. Suspension trauma is one of the most serious hazards an employee is exposed to on a job site.

