Suspension Trauma Stats and Facts

FACTS

1. Suspension trauma occurs when a body is suspended motionless in an upright, vertical position, such as while awaiting rescue after an arrested fall in a harness.
2. The onset of suspension trauma typically occurs within five to thirty minutes of the victim being suspended.
3. Suspension trauma can also become life-threatening if treatment protocols are not observed, making a quick rescue and appropriate first aid treatment critical.
4. When the leg muscles are relaxed, veins in the legs can expand dramatically (known as vasodilation). Because the leg muscles are not being used to stand up, they are not contracting and therefore not preventing the veins from expanding. This lack of constriction from the leg muscles allows blood to gather in the legs rather than returning to the heart and lungs for recirculation, an effect known as venous pooling.
5. The loss of circulation causes the heart to work harder to keep the brain and vital organs supplied with blood. This results in nausea, unconsciousness, and a drop in blood pressure and heart rate. This part of suspension trauma is the onset of circulatory shock.

STATS

- Suspension scaffolds were involved in 30% (25 of 82 incidents and 27 deaths) of the falls from scaffolds. Of the 25 falls from suspension scaffolds, 68% (17) involved scaffold equipment failure. Personal fall protection equipment was used in only three of these incidents, but it was used improperly in each case. In one incident, a worker fell out of his improperly fastened safety belt; in the other two incidents, excessively long lanyards broke or separated after victims fell 30 feet.