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Job Safety and Environmental Analysis
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TOOLBOX TALK

Correct Use of Safety Harnesses

Falls even from a relatively low height can result in serious injury or death. Workers who do not comply with using the proper fall protection equipment, including their safety harness, each and every time they work at height, are placing not only themselves at risk but also those around them. When workers choose to work at height without wearing their harness, even during a task that takes just a few minutes or occurs at a low height, the risks, and costs, can be enormous.

Moment of Impact (MOI)

The Moment of Impact (MOI) is the point when a falling worker's fall arrest system engages to stop the worker's fall. Significant forces can be exerted on the body during this time: a 90 kg person falling 2meters will be exposed to an approximate force 5.90Kn (around 600 kg) in a non-absorbed fall. The force is reduce to 6kN if a shock absorbing lanyard is deployed. If the appropriate fall arrest system or harness has not been used, or even if the appropriate system is used but is not worn or fitted correctly, serious injuries such as broken ribs, punctured lungs or even death can occur.

Furthermore, a poorly designed or poorly fitted harness can lead to serious head injuries. LINQ's research has found that a significant number of fallen workers are rescued unconscious as a result of fall arrest hardware impacting with their head during the moment of impact.

Fall-Arrest Systems

PPE is the last line of defence in the hierarchy of control and should be used where it is not reasonably practicable to use higher level control measures. Fall arrest systems include anything from anchor points to lifelines, inertial reels, fall arrest harnesses, shock absorbing lanyards and more.

The importance of harness fit

For a harness to function correctly and do the job it is designed for, it must be correctly fitted, or it can cause significant injury and potentially lead to death at the Moment of Impact (MOI).

Harness brand selection is also an important, good harness design will shepherd the worker into correctly fitting their harness, reducing the likelihood of serious injury.

The importance of training

Employers must provide information, training and instruction to workers including:

- Procedures for emergency and rescue
- Type of control measures used to prevent falls
- Procedures for reporting fall hazards and incidents
- The correct selection, fitting, use, care, inspection, maintenance, and storage of fall-arrest and restraint equipment
- The correct use of tools and equipment used in the work
- Control measures for other potential hazards (eg electrical hazards)

Equipment Inspection and Maintenance

- The Australian Standard requires that harnesses and lanyards must be inspected by a height safety equipment inspector as per the manufacturer's instructions, or every six months
- The manufacturer and/or supplier of the equipment should be consulted for any product-specific requirements
- Prior to and after use, fall arrest equipment including lanyards and harnesses must be inspected by a 'competent person'
- Users of height safety equipment should also ensure that any equipment is in good condition and order and has been inspected, serviced, and maintained

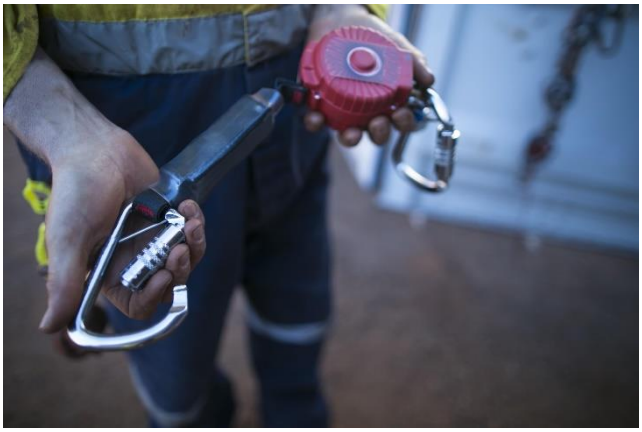
Hazards

Listed below are some hazards associated with the use of harnesses:

- Not fixing the lanyard to a structure or safety line
- Fixing the lanyard to an unsuitable anchor point
- The sudden stop of the harness and line may cause shock injuries
- Falling out of a poorly adjusted harness
- Using a poorly maintained or damaged harness may result in its failure
- Suspension trauma, which is the effect of being suspended in the harness

Safety Tips

- Before any work commences either at extreme heights or in a confined space or any work situation where immediate or unrestricted access is not available to remove an injured person should an accident occur, you must have a written plan of action for the retrieval of injured persons
- Always check to ensure product labelling and tagging is legible and attached to the lanyard
- Ensure webbing are free from cuts, broken fibre, and other damage. Visually check for damage across the entire length of the equipment
- Ensure D-rings, buckles, rivets, and grommets are free from cracks and deformities Visually and physically check for sharp edges and distortions
- Inspect snap hook ends
- Check lanyards and Inspect rope lanyards for broken strands, discard lanyards with broken strands.



If suspended ensure:

- The rescue begins immediately
- The worker deploys and uses a suspension trauma strap
- They move their legs and push against any footholds where possible
- They raise their legs and get them as horizontal with head as possible
- Other workers should not put themselves at risk during the rescue

Company or Organisation Name:		Date:	
Meeting held at:			
Meeting Conducted by:		Signed:	

Other issues addressed:	
1	
2	
3	
4	

Action Required:

Action	**By Whom**	**By When**

Attendance (all participants to print name and sign):

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