

August 2017

Safety nets

This Safety Alert highlights the serious health and safety risks for workers when using poorly installed safety nets as protection against a fall from height.

What happened?

In the last few months, we have been notified of several incidents involving the failure of safety nets for workers working at heights. These incidents resulted in workers being injured – some very seriously.

A fall from height can cause serious harm to a worker (or any other person). Installing a safety net below a work area at height reduces the chance a worker will be harmed if they fall.

However, these incidents highlight the importance of setting up safety nets correctly so they are effective.

What we know

In each of the incidents that we have investigated, the failure fell into two categories: incorrect installation or non-compliant product.

Some of the key failures that we have found:

- nets that are well below an acceptable standard for use on site
- installation by untrained installers
- nets are not coupled correctly when multiple nets are used in a large room
- nets are being uninstalled and reinstalled by untrained workers on site
- nets are not being installed to allow for deflection (installed too tight or too loose)
- brackets are not being installed to withstand shock loading



- brackets are being installed into non-load-bearing structures/knotted wood causing the bracket to pull/break away if a worker falls into the net
- Tek screws are failing due to poor installation technique/over torquing/re-use of screws.

WorkSafe advice

Safety nets are designed to progressively deflect (stretch) and absorb the energy of a fall, so a falling person is less likely to be injured. The greater the fall height, the greater the impact; so the net's deflection must also be greater. The safety net must be able to deform or deflect enough to absorb all of the energy when someone falls – up to the maximum fall height for the design.

For the Supplier

- Ensure that any nets you supply meet the appropriate standards for New Zealand.
- Provide clients with standard operating procedures or instructions for installation.
- Ensure that the equipment you are supplying is in sound condition before each use.
- Ensure that your installers are trained and competent (and you are assessing and monitoring their work/auditing their installation).
- Ensure that the nets are adequate and fit for purpose for each job.
- Talk to your clients about the suitability of nets as fall protection.

For the Installer

- Follow the instructions for installation.
- Ensure safe methods of work are followed.
- Ensure the correct use of anchorages/ties/foundations and that they are suitable for the application (designed to a standard/engineered specifications - that they will withstand the amount of force if a person falls).
- Ensure that clients are clearly informed on the correct use and limitations of the equipment, including the need to have installers reinstall nets after a fall, or where nets have been partially removed.

For the Client

- Plan your workflow to ensure height safety equipment arrives at the best time.
- Make sure that you communicate the full extent of your needs to the net supplier.
- Ensure the equipment supplied is suitable for your work.
- Ensure you/your workers are aware of the use and limitations of the equipment, and it's fit for your purpose.
- Ensure that nets are reinstated by a competent person after an alteration or fall.

Guidance

Safe Use of Safety Nets

This best practice guideline outlines safety net requirements and the safe use of safety nets: <http://construction.worksafe.govt.nz/guides/safe-use-of-safety-nets/#summary>

Working at Height in New Zealand

This good practice guide will provide practical guidance to employers, contractors, employees and all others engaged in work associated with working at height. Selecting the right equipment for working safely at height (fact sheet):

<http://construction.worksafe.govt.nz/guides/working-at-height-in-new-zealand>

Fact sheets, bulletins and alerts for Preventing Falls From Height In Construction:

www.worksafe.govt.nz/worksafe/information-guidance/national-programmes/preventing-falls-from-height-in-construction/factsheets-bulletins-and-alerts