

## BE SAFE WORKING ON ROOFS

**Everyone is responsible for preventing falls when working on a roof – the principal, the self-employed contractor and subcontractor, the employer and the worker.**

Health and safety in the workplace starts when the decision is made to go ahead with a construction job. All aspects of working safely at height should be considered.

Investigations into construction falls from height show:

- > more than 50% of falls are from less than 3 m
- > approximately 70% of falls are from ladders and roofs.

The cost of falls from height in construction has been estimated at \$24 million a year. The financial and human cost is simply too high.

Preventing falls from height is a priority for WorkSafe and it expects employers and contractors with staff working at height to actively manage this significant hazard.

### CONTROL THE HAZARD

#### - DOING NOTHING IS NOT AN OPTION

To stay safe when working at height, you must ensure effective controls are in place to prevent people being harmed.



To select the most effective controls, you must consider the following steps in sequence:

1. **eliminate** the chances of a fall by doing as much of the preparation work as possible on the ground.
2. **isolate** the worker from the risk of a fall by using scaffolds and edge protection to prevent the fall.
3. Only when these steps are not achievable should the risk be **minimised** by the use of a fall restraint or a fall protection system such as safety nets or airbags.

In some situations a combination of controls will be required to ensure safe work.

**Remember doing nothing is not an option!**

## CHECKLIST FOR WORKING SAFELY ON A ROOF

- Are workers trained or supervised to work on a roof safely?
- Has a full hazard assessment been completed before work starts?
- Is there safe access to roof areas?
- Have existing structures been thoroughly checked – pitch, trusses, rafters, purlins/sarking, translucent roofing material, mesh, corrosion and fixings?
- Are workers protected from falling off roof edges?
- Are workers protected from falling from incomplete roofs?
- Are workers protected from falling through skylights and penetrations or other brittle roofing?
- Are physical barriers/bump rails at least 2 m from a fall hazard?
- Are people below the work protected from the dangers of falling materials?
- Do roof workers have appropriate footwear to prevent them slipping?
- Are the weather conditions suitable for working on a roof?

## EDGE PROTECTION

Edge protection is the preferred control for preventing falls from roofs on single-storey buildings because it isolates multiple workers from the risk of a fall.

If this is not practicable then the use of scaffolding, mobile elevating work platforms or temporary work platforms are more acceptable alternatives.

Provide edge protection on all the exposed edges of a roof, including the perimeter of buildings, skylights or other fragile roof materials, and any openings in the roof. This also applies to openings and edges of floor areas.

Where there is the risk of workers falling through openings in a roof, the openings should be covered securely and designed to withstand any loads that may be applied to the cover.

Make sure there is a fall protection method that all people can use when working on the same roof.

## ELIMINATE THE HAZARD OF A FALL FROM A ROOF

- > Work from the ground.
- > Work from inside where there is no possibility of a fall.
- > Prefabricate components at ground level or prior to installation.
- > Remove complete fixtures to ground level for maintenance (eg air conditioning units).
- > Pre-paint fixture/roof prior to installation.
- > Install the aerial or plant on the side of the building or on the ground.

## ISOLATE THE HAZARD OF A FALL FROM A ROOF

If eliminating the hazard is not practicable, consider:

- > scaffolding and mobile scaffolds
- > step platforms
- > perimeter guard railing
- > working in an elevating work platform
- > temporary edge protection
- > physical barriers – at least 2 m from a fall hazard or to prevent access to a hazard
- > total restraint systems
- > safety mesh (AS/NZS 4389) on top of purlins.

Only when the above steps are not practicable should you consider minimisation controls such as fall arrest systems and safety nets.

#### **OTHER SOURCES OF INFORMATION**

Best Practice Guidelines for Working at Height  
Best Practice Guidelines for Working on Roofs

#### **Working Safely at Height Toolkit Fact sheets:**

Planning a safe approach to working at height  
Selecting the right equipment for working safely at height  
Short duration work at height  
Edge protection  
Temporary work platforms  
Total restraint systems  
Safe working with ladders and stepladders

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**This fact sheet is part of the *Working Safely at Height Toolkit* that supports the Best Practice Guidelines for Working at Height in New Zealand.**

- > Fact Sheet 1: Planning a safe approach to working at height
- > Fact Sheet 2: Selecting the right equipment for working safely at height
- > Fact Sheet 3: Short duration work at height
- > Fact Sheet 4: Edge protection

- > Fact Sheet 5: Temporary work platforms
- > Fact Sheet 6: Total restraint system

#### **For additional guidance on safe working at height see:**

- > Be Safe Working on Roofs
- > Safe Working with Ladders and Stepladders
- > Health and Safety In Contracting Situations