

Ladders and residential roofs cause up to 70% of fall injuries, with over 50% from heights less than three meters. Ladders, lacking platforms and fall protection, are inefficient and suitable only for short-term use and accessing levels.

Awareness of hazards:

If used incorrectly, a ladder is an unsafe work method of working at height. In addition to falls, objects can be dropped from ladders onto others. Like all falls the surface or objects beneath are also impact hazards. Metal ladders also conduct electricity and are therefore an energy hazard in some situations.

Understanding risks:

Different aspects of the work environment, work activities and worker behaviour combine to create different risks. The surface a ladder is standing upon, the kind of work undertaken, and the care taken by the user are key contributors to risks. Workers should check the condition, set up, and use of the ladder.

Safe behaviours for ladder use include using the correct type, checking the condition (e.g., defects, feet and caps,

Eliminate or minimise risks (examples):

stiles and rungs, side stays and clips), ensure correct positioning close to the work with the correct angle (4:1 ratio), and securing both stiles at the top. Check tag and test is current (if applicable).

Unsafe behaviours include supporting planks on rungs, supporting rungs on planks, carrying loads up ladders, overreaching, ladder does not extend 1m above level, using on unstable or unlevel ground, and storing ladders outside. Ladder use should not block access/egress routes.

Essential behaviours are maintaining three points of contact at all times, moving the ladder to avoid overreaching (belt buckle remains between the stiles), ensuring the ladder is stable and secured, keeping the ground free of hazards, checking for overhead live services, and cleaning mud or grease from boots. Some sites use permit to work systems for ladder use.

Risk controls focus on either the hazard or the behaviour of workers and others.

- Eliminate the hazard. Work methods from ground level.
- Substitute the hazard. More suitable ladders. Temporary work platforms. Hoists for loads. Wooden ladders around live services.
- Isolate the hazard. Fall restraint/work positioning systems. Isolation zones.
- Use engineered modifications. Stabilisers/slip pads. Ties.

Focusing on human behaviours include:

- Administration of safe systems of work. Checks (AS/NZS) and maintenance: condition, set up, and correct use. Permits. Training.
- Personal protection equipment (PPE). Clean boots. Hard hats (falling objects).

