

Falls are the leading cause of work-related immediate inpatient hospitalizations for roofing workers in Washington State. From 2014 through 2018, 93 roofing workers were hospitalized due to falls— 83% of all roofing hospitalizations.

Every roof is different, but the same fall protection principles apply to protect workers. In these three cases, roofers were injured in falls when they were not tied off to an anchorage point.

### Rofer Falls 20 Feet While Walking to Anchor Point

A roofing company was hired to replace shingles on an 8 in 12 pitch residential roof. Shortly after start of shift on the third day, a newly hired roofer climbed the ladder on the back of the house. He was wearing his harness and tool belt. The roofer was walking from the ladder to tie off to an anchorage point three feet away when he slipped and fell 20 feet to the ground, landing on his side and hitting his head.

The roofer suffered a traumatic brain injury and is no longer able to work.



### Rofer Falls 16 Feet After Unhooking Safety Rope

A newly hired roofer was working alone on a Sunday. He had tied a second rope to his anchored safety rope to make it longer. It was still not long enough to reach the edge of the roof in front of the dormer, so he unhooked the safety rope from his harness. Once he was done with his task, he grabbed the rope to pull himself up the roof. When he put tension on it, the second rope detached and he fell backwards off the eave landing on his hands 16 feet below.

The roofer suffered a concussion and multiple fractures to both wrists, which required immediate surgery. He is still not back to work.



### Rofer Falls 20 Feet While Walking Backwards on Roof

An experienced roofer was preparing to install additional anchorage points on the ridge line of a 6 in 12 pitch residential roof. He started removing shingles with a shovel in the middle of the roof. As he was walking backwards tearing off shingles, he walked off the end of the roof and fell approximately 20 feet onto some shrubbery below. The worker had not connected to one of the existing anchor point.

The worker suffered multiple rib fractures.



## Requirements

- **Steep pitched roofs.** Regardless of work activity, you must ensure that employees exposed to fall hazards of 4 feet or more while working on a roof with a pitch greater than 4 in 12 use one of the following:
  - Fall restraint system. Safety monitors and warning line systems are prohibited on steep pitched roofs;
  - Fall arrest system; or
  - Positioning device system.

See [WAC 296-880-20005\(6\)](#).

- **Low pitched roofs.** The employer must ensure that a fall arrest system, fall restraint system, or positioning device system is provided, installed, and implemented in accordance with this chapter when employees are exposed to fall hazards of 10 feet or more. See [WAC 296-880-30005\(1\)](#).

For work other than roofing on low-pitched roofs, see [WAC 296-880-20005\(7\)](#).

- **Fall protection work plan.** You must develop and implement a written fall protection work plan including each area of the work place where the employees are assigned and where fall hazards of 10 feet or more exist.

Prior to permitting employees into areas where fall hazards exist you must ensure employees are trained and instructed in the fall protection work plan. See [WAC 296-880-10020](#).

- **Equipment Inspection.** You must inspect all components (including hardware, lanyards, and positioning harnesses or full body harnesses depending on which system is used) of personal fall arrest systems, personal fall restraint systems and positioning device systems prior to each use according to manufacturer's specifications for mildew, wear, damage, and other deterioration. You must remove defective components from service if their function or strength has been adversely affected. See [WAC 296-880-10005\(2\)\(a\)](#).

## Recommendations

- **Keep hands free of tools and materials** while transitioning from ladder to the anchorage point.
- **Check roof conditions** before walking on it. Make sure the roof is clear of fall hazards.
- **Be aware of your surroundings.** Pay attention to where you are walking and watch for hazards.
- Employers and supervisors should frequently **emphasize the importance of using fall protection** properly at all times when required, and do spot checks to make sure workers maintain 100% tie-off.

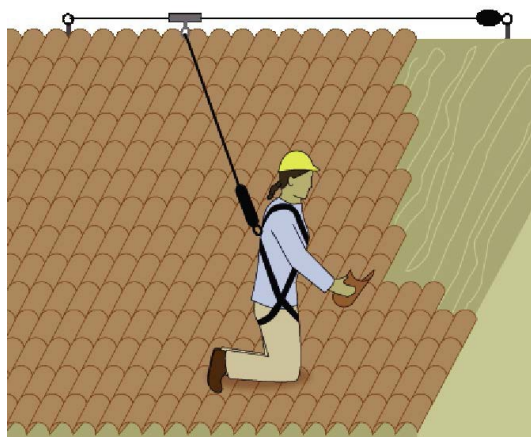


Illustration of a horizontal lifeline.

## Resources

**Chapter 296-880 Unified Safety Standards for Fall Protection** <https://app.leg.wa.gov/wac/default.aspx?cite=296-880>

**Reducing Falls During Residential Construction: Re-Roofing** <https://www.osha.gov/Publications/reducing-falls-during-residential-construction-re-roofing.html>

**Prevent Construction Falls from Roofs, Ladders, and Scaffolds** <https://www.cdc.gov/niosh/docs/2019-128/pdfs/2019-128Revised112019.pdf?id=10.26616/NIOSH-PUB2019128revised112019>