

MEDIA FACT SHEET

FALLS FROM ROOFS – RISKS AND PREVENTION

The Problem for Construction Workers

Falls are the leading cause of injuries and fatalities in the construction industry, accounting for one-third of all on-the-job deaths.¹ Falls from roofs are a main cause of these deaths. One study found that over an 18-year period, one-third of fatal falls in construction were falls from roofs.² In 2016, 123 workers died from falls from roofs and an additional 1,580 were injured.³

Factors that contribute to falls from roofs include unprotected roof edges, unguarded roof openings such as skylights, roof collapses, and leading edges. Without fall protection, these falls can result in serious injury or death.⁴ In fact, the absence of fall protection is the most frequently cited workplace violation by the Occupational Safety and Health Administration (OSHA).¹

Injuries and Fatalities are Preventable

In 2015, OSHA published [Protecting Roofing Workers](#), which describes employer requirements for preventing roofing injuries and death. There are a number of standards, but in general, OSHA requires employers to⁵:

- Assess the worksite to determine if work surfaces have the strength and structural integrity to safely support workers.
- Train their employees to work safely at heights. Owners, supervisors, and foremen should make sure that they are well informed on fall risks and safety procedures.
- Provide workers with fall protection equipment (personal fall arrest systems [PFAS], guardrails, or safety nets) that meets OSHA requirements whenever they work 6 feet or more above a lower level. Employers must also ensure that the fall protection is in good condition, and is being used properly.
- Have a plan for rescuing workers in the event of a fall.
- Keep the worksite clear of debris to prevent tripping hazards that can lead to falls.
- Protect workers from electrical hazards by de-energizing the circuits, grounding, or by guarding them effectively through insulation. If working near power lines, workers should be kept at least 10 feet away, and the power company should de-energize and ground them.

- Protect workers from falling into or through roof holes or openings such as skylights by using covers, PFAS, or guardrails.
- Develop a written site-specific fall protection plan if conventional fall protection equipment (guardrails, safety nets, or PFAS) is not feasible or would create a greater hazard to use. This option is only available to employees engaged in leading edge work, precast concrete erection, or residential construction.

CPWR Research and Resources

- **Fall Protection Harnesses Hazard Alert Card** – a brief, image-driven handout to help workers understand how to use fall protection harnesses properly. Available in [English](#) and [Spanish](#).
- **Toolbox Talks** – short discussion guides for use by foremen or supervisors to raise worker awareness and discuss site-specific actions to prevent a fall from a roof.
 - ◇ **Preventing Falls Through Holes** – Available in [English](#) and [Spanish](#)
 - ◇ **Preventing Falls From Rooftops** – Available in [English](#) and [Spanish](#)
 - ◇ **Roof Collapse** – Available in [English](#) and [Spanish](#)
- [Roofs Topic Page](#) on stopconstructionfalls.com, a website dedicated to preventing falls in construction.
- **Infographics** –
 - ◇ **Preventing Falls Through Skylights and Holes** – Available in [English](#) and [Spanish](#)
 - ◇ **Fall Protection Saves Lives** – Available in [English](#) and [Spanish](#)
 - ◇ **How High is Deadly?** – Available in [English](#) and [Spanish](#)
- [Fatality Map](#) – interactive map showing fall fatalities across the nation, including ones associated with roofs.
- **Studies** –
 - ◇ [Fall Protection Resources for New Home Construction](#)
 - ◇ [Using Social Media to Inform Latino Construction Workers about Fall Protection](#)
 - ◇ [Fatal Falls from Roofs Among U.S. Construction Workers](#)

Other Resources

- [Fall Protection Resource for New Home Construction](#) – a catalog of fall protection equipment for residential construction.
- [Fall Protection in Construction](#) – OSHA, 2015
- [Installing Standing Seam Metal Roofs](#) – OSHA Fact Sheet, 2012 (Also available in [Spanish](#))
- [Re-Roofing](#) – OSHA Fact Sheet, 2012 (Also available in [Spanish](#))
- [Installing Roof Trusses](#) – OSHA Fact Sheet, 2011 (Also available in [Spanish](#))
- [Installing Tile Roofs](#) – OSHA Fact Sheet, 2011 (Also available in [Spanish](#))
- [Roof Repair](#) – OSHA Fact Sheet, 2011 (Also available in [Spanish](#))
- [Roof Sheathing](#) – OSHA Fact Sheet, 2012 (Also available in [Spanish](#))
- [Roof Tarping](#) – OSHA Fact Sheet, 2017

About CPWR

CPWR - The Center for Construction Research and Training [CPWR] is a 501(c)3 non-profit dedicated to reducing injuries, illnesses, and fatalities in construction, and currently serves as NIOSH's National Construction Center. Through research, training, and service programs, CPWR works in partnership with industry stakeholders, safety and health professionals, academics, and key government agencies, to identify and find solutions for occupational hazards and improve the safety and health of construction workers. For more information, please visit: www.CPWR.com

References

- ¹Occupational Safety and Health Administration [OSHA], 2017. *Commonly Used Statistics*. <https://www.osha.gov/oshstats/commonstats.html>
- ²Dong, X.S., Choi, S.D., Borchardt, J.G., Wang, X., Largay, J.A. (2013). Fatal falls from roofs among U.S. construction workers. *Journal of Safety Research*, 44, 17–24. <http://www.sciencedirect.com/science/article/pii/S0022437512001247>
- ³U.S. Bureau of Labor Statistics. *Census of Fatal Occupational Injuries (CFOI) - Current and Revised Data*. <https://www.bls.gov/iif/oshcfoi1.htm>. Accessed March 16, 2018. The data is for the private sector construction industry.
- ⁴OSHA, 2011. *Construction Focus Four: Fall Hazards*. https://www.osha.gov/dte/outreach/construction/focus_four/falls/falls_ig.pdf
- ⁵OSHA, 2015. *Protecting Roofing Workers*. <https://www.osha.gov/Publications/OSHA3755.pdf>