



MIOSHA Fact Sheet

Construction Safety & Health Division

Portable Ladder Safety

From 2010 to 2012, the Construction Safety and Health Division conducted five fatality investigations where the use of a ladder was the key factor. In most of the cases, the ladder being used was a portable extension ladder.

- On 11/5/10, a carpenter fell 16 feet while working from an extension ladder while repairing a window.
- On 6/13/11, a roofer fell while climbing an extension ladder to access a roof eave that was 24 feet high.
- On 11/28/11, a roofer lashed together a 20-foot section of an extension ladder to a 40-foot extension ladder in order to reach the roof eave. While climbing the ladder, they separated and the employee fell 25 feet.
- On 1/6/11, a plumber fell while operating an auger drill while standing on a 6-foot step ladder.
- On 3/1/12, a roofer was electrocuted while setting up an aluminum extension ladder and contacted the 7,600-volt power line running overhead.

It is imperative that employers train their employees in the proper use and set up of ladders, and provide them with the right ladders to do the work safely. [Part 11 – Fixed and Portable Ladders](#), Rule 1112 (1) states:

"The employer shall provide a training program for each employee who uses a ladder. The program shall enable each employee to recognize hazards related to the ladder and shall train each employee in the procedures to be followed to minimize these hazards." Training shall include:

- (a) The nature of fall hazards in the work area.
- (b) The proper construction, use, and placement of, and care in handling, ladders.
- (c) The maximum intended load-carrying capacities of ladders that are used.

Key safety points when using portable ladders:

- Always select the correct ladder for the work being performed. Make sure the ladder is only used for its intended purpose. Follow the manufacturer's instructions.
- Place the ladder on a substantial and stable base unless secured to prevent accidental displacement.
- A portable ladder must be equipped with appropriate safety feet, unless the ladder is secured against displacement.
- A portable extension ladder shall be set up so the horizontal distance from the top support to the base is $\frac{1}{4}$ of the vertical distance.
- Ensure the ladder is kept clear of energized electrical lines (transmission and distribution). The minimum distance for metal ladders is 20 feet. Minimum distance for other than metal is 10 feet for up to 50kV and 0.4 inches per kV thereafter.
- Face the ladder while ascending or descending the ladder.
- Center your body between the ladder rungs at all times. Do not overreach.
- Make sure the ladder is extended at least three feet above an upper landing surface.
- Never stand on the cap or top step of a step ladder.
- Do not stand on the top two rungs of an extension ladder.

- Keep ladders clear of unlocked doorways.
- A manufactured portable metal ladder shall not be used for electrical work or where it is exposed to contact with electrical conductors.
- A step ladder shall not be used as a straight ladder by leaning it against a wall or other support.

For additional training and assistance, please contact the Consultation, Education and Training Division at www.michigan.gov/cetra.

LARA is an equal opportunity employer/program.
Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.



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