

## Additional Information

**On-site Consultation Program**  
Massachusetts Department of Labor  
Standards  
(508) 616-0461  
[www.mass.gov/dols](http://www.mass.gov/dols)

**OSHA Regional Office**  
JFK Federal Building- Room E340  
Boston, MA 02203  
(617) 565-9860  
[www.osha.gov](http://www.osha.gov)

**The Center for Construction Research  
and Training**  
Ladder safety materials and resources at:  
[www.cpwr.com](http://www.cpwr.com)

**MA FACE Project**  
Occupational Health Surveillance Program  
Massachusetts Department of Public Health  
250 Washington Street  
Boston, MA 02108  
(617) 624-5627  
[www.mass.gov/dph/FACE](http://www.mass.gov/dph/FACE)

FACE is an occupational injury prevention project conducted by the Massachusetts Department of Public Health. FACE is not responsible for the enforcement of safety standards. FACE investigates workplace fatalities to identify risk factors that lead to fatal injury in order to prevent future deaths.

The FACE Project is funded by the National Institute for Occupational Safety and Health (NIOSH).

Many thanks to the contractors and others who helped develop this brochure.

*Last updated 5/2012*

# LADDER SAFETY

## For Residential Construction Contractors



Massachusetts Department of Public Health  
Fatality Assessment and Control Evaluation  
(FACE) Project



## Keep Your Workers Safe — Improper Ladder Use Can Be Fatal!

An extension ladder collapse sent a 37-year-old plumber 20 feet to his death. The plumber was coming down the ladder after inspecting a rooftop ventilation system. The rung locks failed to grip properly and the ladder collapsed.



A 62-year-old general contractor fell 20 feet while installing exterior molding from the second floor porch of a new home. The contractor was working from a 7-foot step ladder and lost his balance. His workers found him on the ground with the ladder on top of him. He died that night.



A 29-year-old carpenter was electrocuted when the aluminum ladder he was carrying made contact with an overhead power line. The carpenter was moving the 40-foot ladder from the front of a 3-family residence when it made contact with the power line 24 feet above the ground.

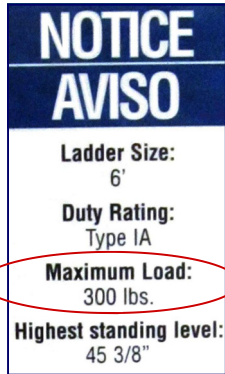
## Plan Ahead for the Job and Inspect Ladders Before Use

**First, can the task be done safely from a ladder?** If not, use scaffolding or a lift.

If using ladders:

- Bring the right ladder for the job: self-supporting, straight, or extension ladder.

- Check the duty rating label on the ladder. Don't overload. →




- Heavy-duty industrial ladders (Type 1 or 1A), can only carry up to 250 or 300 pounds including the worker and their tools.

- Check the ladder for loose, cracked or greasy rungs, split side rails, and worn shoes. Make sure the rung locks are in working order.

- Tag and remove defective ladders from the job site.

- Don't use a ladder in a horizontal position as a scaffold.

- Call the electric company for assistance if working near power lines, to prevent electrocution.

 **Fact:** It only takes 1 second to hit the ground from a 16-foot fall. Over half of the fatal falls in construction are from heights of less than 25 feet.

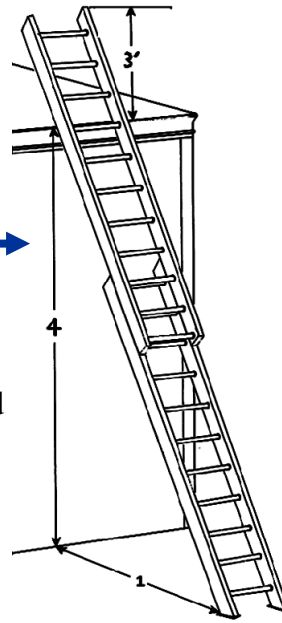
## Setting Up Ladders

- Clear away debris and obstructions, and block off the area around the bottom of the ladder to prevent it from being bumped into.

- Set the ladder on dry, level ground. Use the “heel test” to check firmness of the ground. Stomp your heel down; if it goes into the ground more than 1 inch, a base is needed below the ladder.

- If a base is needed, set it on a secure, even surface. Plywood can be used if it is dry, clean and sturdy enough to support the expected load.

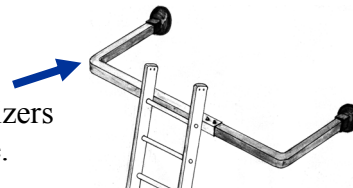
- Set the base of the ladder at a distance of 1 foot out for every 4 feet high. →



- When accessing a porch or roof, extend ladder side rails 3 feet above landing. For extra stability, secure the ladder by tying it to the building.

- If a ladder must be placed in front of a door, secure the door shut so it cannot open.

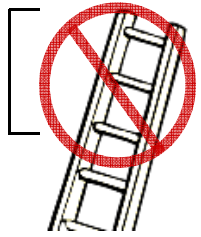
- Use ladder stabilizers when appropriate.



## Climbing Ladders


- Allow only one person on the ladder at a time. Always face the ladder.
- Maintain 3-point contact with the ladder at all times: two hands and one foot, or one hand and two feet.
- Use a tool belt or hoist to lift tools. Never carry tools or materials in-hand while climbing the ladder.

## Working from Ladders

- Keep your belt buckle centered between ladder side rails at all times (“belt buckle rule”).
- To help keep your balance, don't pull, lean, stretch, or make sudden moves while on the ladder.
- Work can be performed more quickly and easily if you don't overreach. Always climb off and reposition the ladder.
- Do not work from the top three rungs of an extension ladder. → 
- Do not work from the top or top step of a step ladder. Never work from a closed step ladder.
- When working on ladders on elevated porches and balconies, remember a fall could send you all the way to the ground.

## Maintain Ladders

- Change the shoes of the ladder regularly.
- Lubricate metal bearings, locks and pulleys.

 **Fact:** A fall from a ladder can leave you severely injured for life. With this kind of injury, you might not be able to take care of yourself or your family.

## Train Your Workers

Though used every day, ladders are often taken for granted. They are a major cause of injury. Ladders are complicated tools, and training is required.



Make sure you and your workers understand and follow safe work procedures.