



**MONASH** University  
Accident Research Centre

# Ladder Falls Prevention

A resource for home ladder users



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# Ladder Falls Prevention

A resource for home ladder users

**Ladder safety – a resource for home ladder users** – is produced by Monash University, through its Accident Research Centre (MUARC) and Department of Forensic Medicine (DFM). This brochure has been produced with financial support from ExxonMobil Australia.

MUARC and DFM are world leading public health and injury prevention research centres. Through high standard research and independent recommendations, MUARC and DFM aim to challenge and support citizens, governments and industries to eliminate serious health losses due to injuries.

One of our strengths is to engage with key stakeholders and community groups to ensure that our evidence-based research findings are translated into effective public education resources to promote key safety messages.

# Introduction



**Around the home, ladders are linked to more DIY deaths and serious injuries than any other product:**

- ◆ most ladder injuries are due to falls
- ◆ the number of deaths and injuries from ladder falls in the home is increasing
- ◆ head injuries are the major cause of injury and death from ladder falls

## **In Victoria:**

- ◆ serious injury from ladder falls doubled from 2002 to 2013
- ◆ 78 persons died as a result of a fall from a ladder at home between 2001 and 2012
- ◆ nearly 7,000 home ladder fall cases were admitted to hospital (2004-2012)
- ◆ more than 6,000 home ladder fall cases were treated in emergency departments (2004-2012)
- ◆ in the workplace ladder deaths and injuries have reduced significantly

# The facts

## Those most at risk are:

Males and persons over 60 years of age.

## Common mechanisms and risks:

- ◆ falls from heights
- ◆ ladders sliding away from under the user
- ◆ using ladder on uneven ground
- ◆ reaching too far while on a ladder
- ◆ carrying heavy/large loads while on ladder
- ◆ wet and windy conditions

## Typically injuries result from:

- ◆ hitting the floor or ground, especially concrete
- ◆ hitting an object near the ladder (e.g. bench, table, garden beds)
- ◆ impact with the ladder itself
- ◆ feet slipping off ladder rungs



# When should you use a ladder?

Ladders are a high-risk piece of equipment.

Assess if you can do the task safely using a ladder.

**Don't work alone when using a ladder**

**Consider alternatives such as:**

- ◆ hiring a tradesperson
- ◆ getting help from a friend or relative
- ◆ seeking advice from your local council
- ◆ using a step stool
- ◆ using a different strategy (e.g. gutter guards to avoid needing to clean roof gutters; long handled devices for cleaning or changing light globes)

# Plan Ahead

## Things you should DO:

If you are going to use a ladder at home, make sure:

- ◆ it is the best type for the selected task
- ◆ height is right for the job
- ◆ extension ladder extends at least one metre above the surface it rests against
- ◆ the ladder's loading rating is adequate: do not exceed this weight
- ◆ the ladder is in good condition: look for cracks in the frame, loose rungs, warping, rust or corrosion, and visible defects such as dents, bends or missing rivets
- ◆ there is no grease or oil on the rungs or steps
- ◆ the safety feet are intact

# Plan Ahead

## Things you should NOT DO:

### Do not use a ladder:

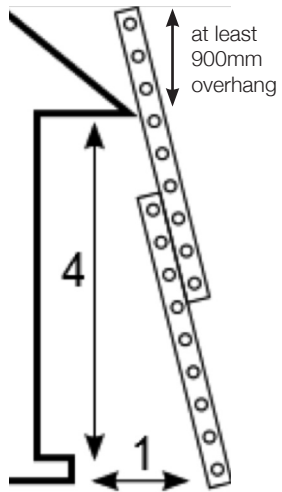
- ◆ for unintended purposes, such as in place of scaffolding
- ◆ if you are working in strong winds or rain
- ◆ if you are affected by medication or if your age or medical condition can affect balance



# Set Up

## Things you should DO:

- ◆ clear away any debris and obstructions from around the job site before commencing
- ◆ only set up the ladder on firm level ground
- ◆ make sure the ladder's feet are parallel to the surface it rests against
- ◆ use base supports to improve stability
- ◆ for extension ladders, ensure that the ladder has at least an angle of 1:4
- ◆ for extensions ladder, secure the top of the ladder before commencing work (anchor points are commercially available)
- ◆ ensure all locks and braces are secure before climbing ladder
- ◆ set the ladder away from overhead power lines or exposed electrical wires
- ◆ ensure that a non-conductive, insulated ladder is used when working near electrical hazards
- ◆ if the ladder is placed near a doorway, the door should be locked open or closed





# Working from ladders

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## Things you should DO:

- ◆ allow only one person on the ladder at a time
- ◆ face the ladder when climbing or descending the ladder
- ◆ maintain three points of contact with the ladder i.e. 2 feet and 1 hand or two hands and 1 foot
- ◆ make sure someone else is around to provide assistance and have them hold the ladder when climbing
- ◆ work within arm's reach from the ladder and never lean out too far. Keep your waist positioned within the side rails of the ladder at all times
- ◆ only climb as far as the second step from the top of a step ladder or the third step/rung from the top of an extension ladder



# Working from ladders

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## Things you should NOT DO:

- ◆ never carry heavy or large tools or material in your hand while climbing the ladder. Use a tool belt or hoist instead
- ◆ don't overreach
- ◆ don't work from the top rung of the ladder
- ◆ do not move the ladder while still on it, climb down and reposition the ladder closer to the work
- ◆ do not leave ladder unattended
- ◆ don't lean a ladder on an unstable or slippery surface



# Buying a ladder

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Only purchase Certified Ladders approved by Australian Standards



## Personal protective equipment

- ◆ personal protective equipment or PPE should be worn when using a ladder
- ◆ wear closed toe shoes that provide grip.  
**Do not wear sandals or thongs**
- ◆ consider wearing a helmet and/or safety harnesses, especially when working at heights or when overhead hazards are present

## Maintenance

- ◆ excessive heat can reduce the strength of a ladder. Acids, alkali solutions, or other corrosive substances can also damage the ladder
- ◆ store the ladder in a cool dry place to avoid warping, rust or corrosion
- ◆ lubricate metal bearings, locks and pulleys



## Additional Information

More information on ladder safety can be found on our website:

**[www.monash.edu/muarc/laddersafety](http://www.monash.edu/muarc/laddersafety)**

For additional safety initiatives, standards and regulations and consumer information, please visit:

Standards Australia

**[www.standards.org.au](http://www.standards.org.au)**

The Australian Competition and Consumer Commission

**[www.accc.gov.au](http://www.accc.gov.au)**

Home and Community Care

(in each State and territory): eg Victoria:

**[www.health.vic.gov.au/hacc](http://www.health.vic.gov.au/hacc)**

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This publication contains general information about the use of ladders in and around the home. Monash University does not warrant or make any representation as to its accuracy, reliability, completeness or otherwise. It is your responsibility to consider appropriate and safe use of your ladder. All ladders should be used in accordance with manufacturer's guidelines. Monash University is not liable for any loss of damage arising from your reliance on the information contained in the publication.