

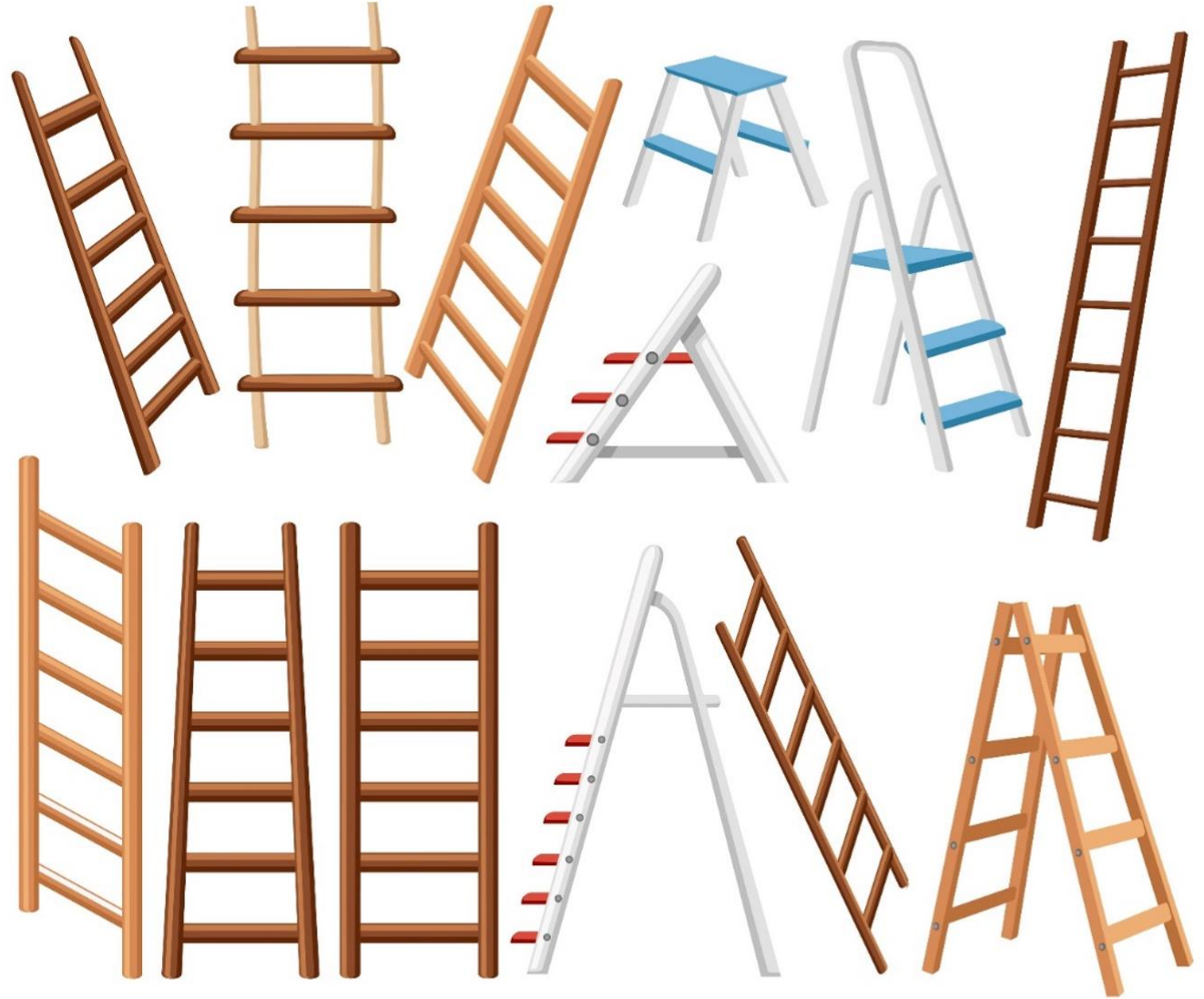
Ladder Safety

General ladder use



Portable ladder safety – topics covered

1. Reasons for falls from ladders
2. Ratings and labels on ladders
3. Composition of ladders
4. Safe ladder practices



Why do people fall off ladders?

Falls from ladders are a frequent cause of serious injuries both on and off the job. The reasons are varied as follows:

- standing on the top step,
- getting onto or off of the ladder improperly,
- mis-stepping or slipping while climbing or descending,
- being bumped by a person or equipment.



More reasons why people fall off ladders

Setting up the ladder on an unstable or slippery surface,
setting up the ladder improperly,
overreaching,
loss of balance.



Ladder labels

STEP LADDER ID LABEL		EXTENSION LADDER ID LABEL
★★★★★	STAR PERFORMANCE	★★★★★
300 lbs. 136 kg CAPACIDAD DE CARGA	LOAD CAPACITY	375 lbs. 170 kg CAPACIDAD DE CARGA
TYPE IA	DUTY RATING	TYPE IAA
6' 1.83m	LADDER SIZE	24' 7.32m
10' 3.05m	MAXIMUM REACH	23' 7.01m
3'10" 1.17m	HIGHEST STANDING LEVEL	17'5" 5.31m
376 Mk 30	MODEL (ID) NUMBER	D7124-2 Mk 14

*Assumes a 150 lb person with a weight 12" reach.
 *Se asume un peso con altura de 1.50m con un alcance vertical de 1.20m.

Non-Conductive Fiberglass Side Rails
 Pisos Laterales de Fibra de Vidrio No Conductores de la Electricidad

ANSI A14.2 OSHA
 ANSI A14.5 OSHA

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DANGER

ALUMINIUM LADDER

DO NOT USE NEAR ELECTRICITY OR WATER

DANGER

TYPE LADDER

MAXIMUM LOAD

300 LBS



Ladder ratings and labels

Rating	Maximum load	Uses
Type I-AA	375 lbs	Special duty industrial use, such as CATV, utilities, contractors, and higher capacity needs
Type I-A	300 lbs.	Extra-heavy-duty industrial use, such as utilities and contractors
Type I	250 lbs	Heavy-duty industrial use, such as utilities and contractors
Type II	225 lbs	Medium-duty work, such as painting, offices for building maintenance, and light industrial use
Type III	200 lbs	Light duty work, such as household use

Ladder composition

Besides having different ratings or load capacities, ladders may be constructed of various kinds of materials – usually wood, fiberglass or metal. Each material has specific care, maintenance, and storage requirements and may be preferred for specific uses, or under certain conditions.



Wood



Fiberglass



Metal



Metal extension
ladder

Ladder composition characteristics

Property	Stability	Durability	Strength-to-weight ratio	Weather-resistance	Conductivity
Wood	Better (heavier)	Less	Good	Not as good	Non-conductive when clean and dry
Fiberglass	Less (lighter)	Better	High	Better	Non-conductive when clean and dry (preferred)
ALUMINUM/ METAL	Less (lightest)	Better	High	Better	Conductive – do not use near exposed electrical sources

Ladder inspection

Look for cracks, splits, dents, bends, corrosion, and missing hardware.



L&I photos

All of these ladders are unsafe and could fail in use.

Mud, oil or grease



Keep shoes/boots free of slippery substances.



Inspect ladder rungs for any oil, grease, mud or other slippery substances which could affect traction.

Climbing or descending a ladder



When climbing a ladder, have both hands free and face the ladder. This allows for three points of contact with the ladder at all times and reduces the chances of falling.

Stepladder safety

Never use the top of a stepladder.

Warning labels on stepladders clearly state that the top step or top cap are not to be used as a step.

The higher you are on a stepladder, the less stable it is.



Stepladder safety

Open up step ladder legs completely and lock the spreader bar braces.

Make sure it is placed on a firm level surface.

Don't use it as a straight ladder to climb up to a higher surface.

Don't place it front of a closed door that opens towards the ladder.



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L&I photo

Both hands free when climbing ladder



Proper ladder climbing with tools on belt and both hands free.



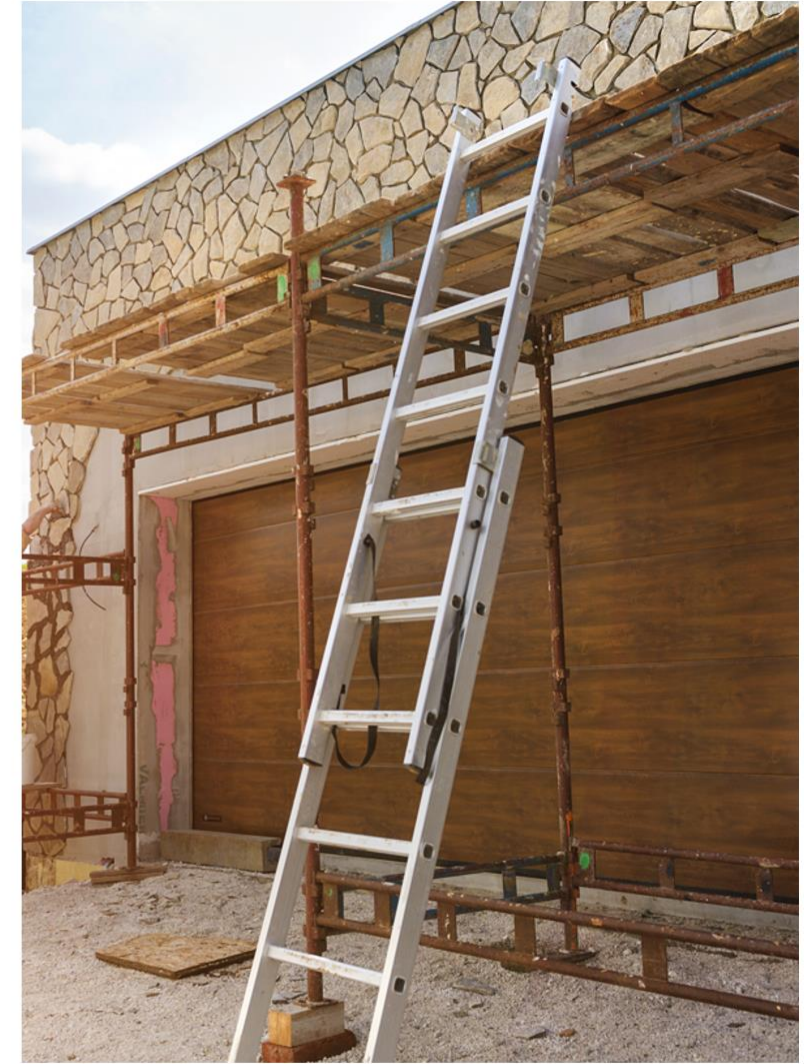
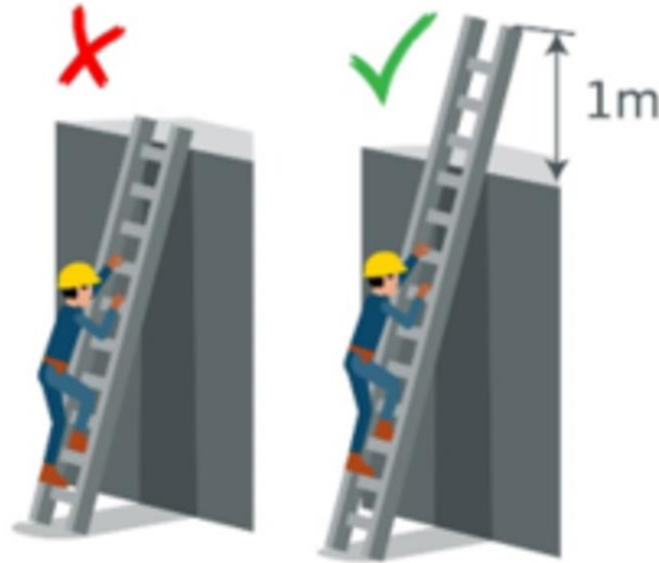
L&I photo

Extension ladder use



Yes!

Extend ladder 3 feet
above upper surface

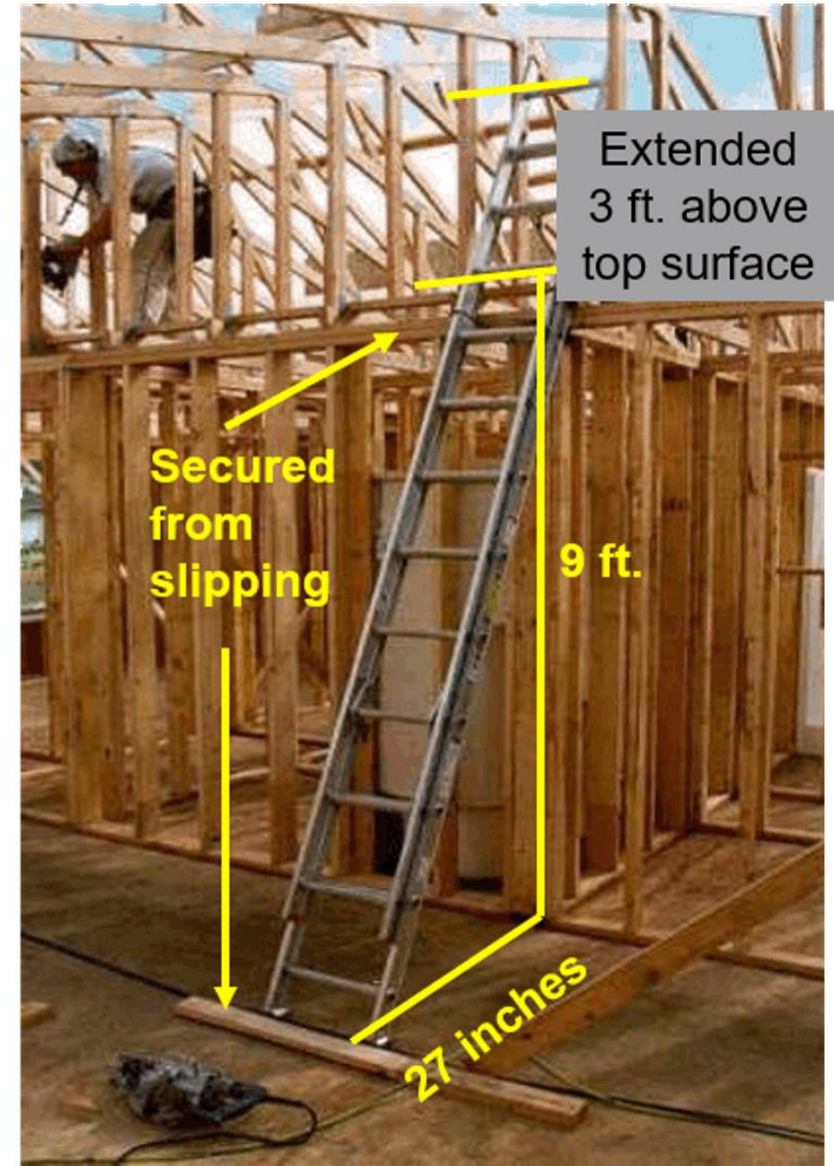


No!

Proper extension ladder setup

For every four feet of ladder length measured from where the ladder contacts the top point, the base of the ladder should be one foot away from the supporting structure (one to four rule).

The ladder must extend at least three feet above the surface to provide safe access or be rigidly secured at the top with a grasping device if less than three feet.



Determining proper ladder setup angle

One way to ensure proper angle is to stand with your feet at the base of the ladder and extend your arms straight out. If your hands just touch, the ladder will be very close to the 4 to 1 ratio.

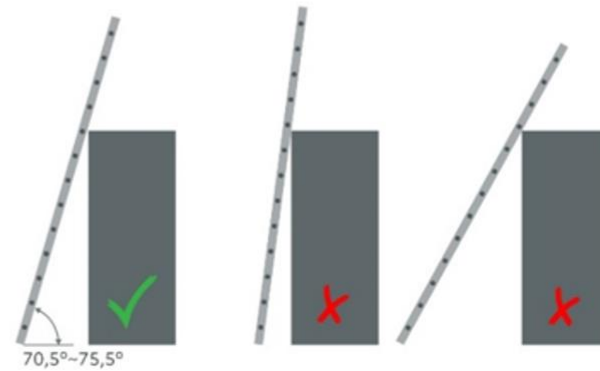
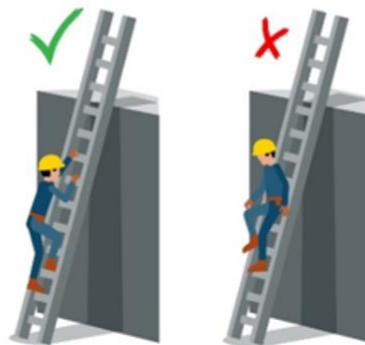
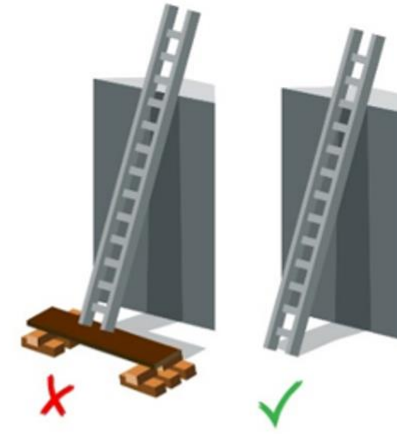
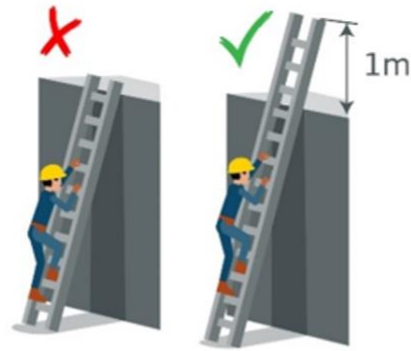


Safe Extension Ladder Use—Do Not:

place a ladder on boxes, barrels, or unstable bases,
use a ladder on soft ground or unstable footing,
tie two ladders together to make them longer,
ignore nearby overhead power lines,
move or shift a ladder while on the ladder,
lean out beyond the ladder's side rails,
use an extension ladder horizontally like a platform.



PORTABLE STRAIGHT LADDERS SAFELY USE



Additional information

[Video - Ladder safety: ladder](#)

[Video - Safe ladder use](#)

[Publication – Ladder Safety Guide](#)

[Werner ladders safety videos](#)

[Construction ladder safety Module](#)



After completing this contact EHS and fill out the Ladder Safety Guideline Form.

