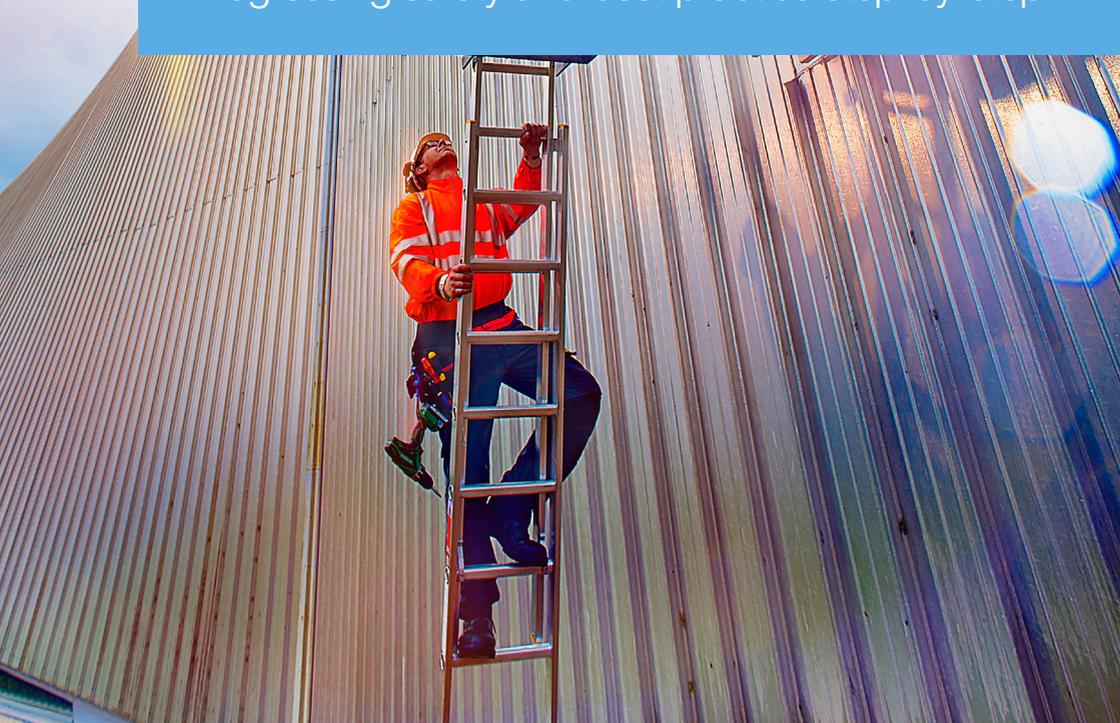


CODE OF PRACTICE

Progressing safety and best practice step-by-step





NO FALLS

FOUNDATION

Saving lives by stopping falls

The only charity dedicated exclusively to the work at height sector.

We prevent falls from height and help people affected by the life-changing consequences of a fall in three ways:



EDUCATION

PREVENTING FALLS
AND OBJECTS
FALLING FROM
HEIGHT



RESEARCH

RESEARCHING THE
CAUSES OF FALLS
AND FALLING
OBJECTS



SUPPORT

PROVIDING SUPPORT
TO PEOPLE AFFECTED
BY THE AFTERMATH
OF A FALL

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01 Foreword from the HSE

Falls when working at height remain the most common kind of workplace fatality, accounting for around a quarter of all worker deaths and 8% of all non-fatal injuries every year, with many involving a fall off a ladder. It's essential that people use the right type of ladder for a task and know how to use it safely.

I am pleased to offer HSE's support for the Ladder Association's latest guidance on safe ladder use. We have worked in partnership to ensure this voluntary code of practice complements HSE's own guidance on compliance, it provides extra detail on good practice. It's been written by industry experts to help people better understand how to manage work at height risk for themselves, to reduce harm.



Peter Brown
Director
HSE Engagement and Policy

02 Introduction

Ladders are an everyday tool in homes and workplaces across the world, allowing millions of people to work at height quickly and easily. They're a versatile and vital piece of equipment, that can be used for a whole range of jobs. But too many people still fall from ladders. The consequences of these falls can be life-changing, for both the victim and their loved ones.

The Ladder Association wants everyone who climbs a ladder to come back down safely. To achieve this, we believe the entire ladder industry must work in collaboration. That's why the Association was formed in 1947; it's the place where ladder manufacturers, suppliers and training providers meet. Separately, these businesses innovate and compete. But when it comes to advancing user safety, they work together.

Our members have made a clear commitment to put safety at the heart of everything they do:

- **Ladder Association Manufacturers** only make ladders that comply with EN 131 (or international equivalents) and are certified by a third-party Conformity Assessment Body;
- **Ladder Association Suppliers** only sell or hire ladders that are certified to EN 131 (or international equivalents);
- **Ladder Association Training Providers** use approved centres to deliver approved training courses, using approved instructors.

We also work closely with the Health & Safety Executive, the Office for Product Safety and Standards, the British Standards Institution and other National Standards Bodies, RoSPA and similar safety-minded organisations to combine insights, experience and knowledge. It means that when our campaigns, training courses and documents like this Code of Practice are put together, there's as much expertise in the room as possible. And remember, we're all there in support of you, the ladder user.

This edition of the Ladder Association Code of Practice takes account of the latest guidance and product standards at the time of issue and supersedes all previous editions. It's designed to keep you, and those around you, safe.

03 Scope

This Code of Practice relates to portable ladders (we'll just call them 'ladders' after this) that have been designed and produced in accordance with standards recognised by the Ladder Association, such as EN 131, and which carry Certification Marks as evidence of third party certification from a Certification Body. The various types of ladders are described in section 7.

In this document you will find guidance on the simple, sensible precautions you should take when using a ladder.

For employers and employees, it's intended to be used when you have established that work at height cannot be avoided and that there is no existing safe place of work, and thereafter have selected a ladder over other, safer work at height equipment because the work is both low risk and short duration, or there are existing workplace features which cannot be altered.

For domestic ladder users, it's intended to be used when you have established that a ladder is the right tool for the job.

It's not intended to be a substitute for training, such as that provided by the Ladder Association's training scheme, but it can be used to support training and act as a reference after training.

Use it in conjunction with the appropriate user instructions from the manufacturer or supplier. All EN 131 ladders should be supplied with user instructions so if you don't have them, get a copy from the manufacturer or supplier.

Following this guidance helps you to comply with health and safety law, but you are free to take other action.

04 References

The following references are relevant to work at height using ladders:

Legislation

- Health & Safety at Work (etc.) Act;
- Work at Height Regulations;
- Management of Health and Safety at Work Regulations;
- Provision and Use of Work Equipment Regulations;
- Construction (Design & Management) Regulations;
- Personal Protective Equipment at Work Regulations;
- Reporting of Injuries, Diseases & Dangerous Occurrences Regulations;
- Control of Substances Hazardous to Health Regulations;
- Manual Handling Operations Regulations.

Other regulations may also apply depending on the location and type of work being carried out.

Guidance

- Safe use of ladders and stepladders - A brief guide, Ladder Association, LA455 (formerly INDG455);
- Working at Height – A brief guide, Health and Safety Executive, INDG401;
- Inspection and Reports, Health and Safety Executive, CIS47;
- Protecting the public: Your next move, Health and Safety Executive, HSG151;
- Health and safety in roof work, Health and Safety Executive, HSG33 (includes guidance on roof ladders).

Copies of these are available from the HSE's website (hse.gov.uk)

Standards

- EN 131 Part 1 – Ladder terms, types, functional sizes;
- EN 131 Part 2 – Ladder requirements, testing, marking;
- EN 131 Part 3 – Ladder marking and user instructions;
- EN 131 Part 4 – Single or multiple hinge-joint ladders;
- EN 131 Part 6 – Telescopic ladders;
- EN 131 Part 7 – Mobile ladders with platform;
- EN 14183 – Step stools;
- BS 8634 – Portable roof ladders;
- BS 8539 - Code of practice for the selection and installation of post-installed anchors in concrete and masonry.

Ladders are not legally required to comply with these standards. However, doing so helps to demonstrate that a ladder is a safe product and safe work equipment, which is a requirement of both consumer and workplace law.

While BS 2037 and BS 1129, together with old versions of EN 131, have now been withdrawn, ladders that were made to these standards prior to their withdrawal may still be used whilst they remain in good condition and fit for use.

Additional References

In conjunction with this Code of Practice, users should refer to the following:

- Safety Guidance on Portable Ladders, Ladder Association;
- Safety Guidance on Telescopic Ladders, Ladder Association;
- Protecting lone workers: How to manage the risks of working alone, HSE, INDG73;
- Manual handling at work: A brief guide, HSE, INDG143;
- Work at height web pages on the HSE website: [hse.gov.uk/work-at-height/index.htm](https://www.hse.gov.uk/work-at-height/index.htm)
- Guidance on the selection and use of ladders on the Ladder Association website: [ladderassociation.org.uk/guidance](https://www.ladderassociation.org.uk/guidance)

Safety Symbols

Throughout this document you'll see safety symbols like these:



These are the same as the ones that you'll see on EN 131 ladders and in their user instructions and they are copied (with the permission of the British Standards Institution) from BS EN131 Part 3. They indicate what you should and shouldn't do when using ladders.

Illustrations

Throughout this document you'll also see illustrations like these:



These have been produced by The Ladder Association. They show what you should and shouldn't do when using ladders.

Competence, Training & Responsibility

At a glance

- You need to be competent to use ladders safely;
- Managers must be competent to supervise those who work on ladders;
- Training helps you to demonstrate that you are competent;
- The Ladder Association runs the industry standard ladder training scheme;
- Users and managers have specific safety responsibilities regarding the use of ladders.

Competence

Although ladders are fairly simple pieces of work equipment, you must be competent to use them. Or, if you're being trained, you should be working under the supervision of a competent person. That's because you're working at height, which always carries risks, and it's important you know how to do it safely.

In the workplace it's not just the user who must be competent. Managers must also be competent to supervise workers who are using ladders. In fact, each person in the chain leading to and including the final user has a duty of care to themselves and others to familiarise themselves with good practice in the use of any access equipment.

Competence can be demonstrated through a combination of training, practical and theoretical knowledge, and experience.

Training

Training for ladders should be appropriate for the task, and this includes knowing:

- How to assess the risks of using a ladder for a particular task;
- When it is right to use a ladder (and when it is not);
- Which type of ladder to use and how to use it.

The Ladder Association recommends that all of those involved in the use of ladders undertake training at an approved Ladder Association training centre. There is a range of courses available to equip ladder users, managers and safety professionals with the knowledge they need to work safely with ladders.

When you successfully complete a Ladder Association training course, you're awarded a certificate of competence and **LadderCard**. This is proof that you've successfully completed training to a recognised standard.

For a list of approved Ladder Association training centres, visit ladderassociation.org.uk



Example of a LadderCard

Responsibilities

You have a responsibility not only for your own safety but also for the safety of anyone else who is affected by what you do.

- Always read and follow the current user instructions and on no account attempt to use a ladder beyond its limitations;
- Do not misuse or abuse any ladder or remove or omit any safety features which are provided for your safety;
- Follow the training and instructions given to you, unless you think it would be unsafe to do so.

06 Literacy, Fitness & Health

At a glance

Ladder users should:

- Be able to read and understand written instructions;
- Be physically fit and in good health;
- Bring any concerns to the attention of their employer;
- Take regular breaks.

Since the safe use of ladders requires you to read and thoroughly understand the ladder's instruction manual and any other safety notices, literacy and language comprehension are important requirements for any ladder user.

Similarly, since using ladders can be physically demanding, users should be physically fit and in good health, and should generally not have problems with eyesight or hearing, heart disease, high blood pressure, epilepsy, fear of heights, vertigo, giddiness, difficulty with balance, impaired limb function, alcohol or drug dependence, including prescribed drugs or psychiatric illness.

Also consider how the effects of extremes of temperature – heat and cold; lack of nutrition – fasting; lack of water – dehydration; and certain medications can impair your ability to work effectively.

If you have any problems with literacy or language comprehension, are pregnant, or have any doubts about your fitness, think carefully about using a ladder. This doesn't necessarily mean that you can't use one, but you should consider these issues and make sure that it is safe for you to do so.

If you are at work, bring it to the attention of your employer. They must conduct an assessment and put adequate measures into place that take account of any difficulties that you have.

Do not spend long periods on a ladder without regular breaks. Tiredness is a serious hazard when working on ladders.



Avoid alcohol and drugs when using a ladder

07 Types of Ladder

At a glance

- There are various types of ladders;
- In this document, the word 'ladder' encompasses different types of portable ladders including leaning ladders, stepladders, step stools and telescopic ladders.

References to 'ladders' in this document, unless otherwise indicated, are to all types of portable leaning ladders and the guidance applies to both. More specific requirements that apply only to a certain type of ladder are covered in detail under the relevant headings.

References to 'leaning ladders' include combination ladders and multi hinge joint ladders that are being used as leaning ladders and also to telescopic leaning ladders. The same applies to references to 'stepladders'.

Leaning ladders

Should be Certified to EN 131 Parts 1, 2 and 3.

Available as single and multi-section ladders, and 2 and 3 section extension ladders. Extension ladders may be push up or fitted with ropes and wheels at the top to enable the upper sections to be extended easily.



Stepladders

Should be Certified to EN 131 Parts 1, 2 and 3.

Available with or without platforms. Stepladders without a platform are often referred to as builder's steps or swingback steps.



Step stools

Should be Certified to EN 14183.

Step stools are a type of stepladder. They have a maximum height of 1m and generally have larger treads than stepladders.



Combination ladders

Should be Certified to EN 131 Parts 1, 2 and 3.

A combination ladder can be used in either stepladder or leaning ladder mode. They are generally available as a 2 or 3 section ladder and can also be used in situations where the floor is of varying heights, e.g. on a staircase. They're sometimes referred to as 'multipurpose' or 'A' frame ladders.



Multi hinge joint ladders

Should be Certified to EN 131 Part 4.

A multi hinge joint ladder normally has one or more pairs of hinge joints and may be used as a stepladder or a leaning ladder. They may also include extending or telescopic sections to vary their length.



Telescopic ladders

Should be Certified to EN 131 Part 6.

Telescopic ladders are available as variations of leaning ladders, stepladders, combination ladders and multi hinge joint ladders. They have telescopic sections so that they can be reduced in size for transportation and storage.



Mobile ladders with a platform

Should be Certified to EN 131 Part 7.

Sometimes called warehouse steps, these ladders are fitted with wheels for movement and with a larger platform with side protection (guardrails) for safety.



Roof ladders

Should be Certified to BS 8634.

Roof ladders (sometimes referred to as a cat ladder or henwalk) are intended for use on pitched roofs with angles between 25 and 65 degrees. They are not intended for use on mono pitch roofs (roofs with a slope only on one side) as the ridge hook cannot be properly located. The profile of some roof coverings (e.g. the shape of roof tiles or sheets) may not allow the bearers of roof ladders to be supported properly. They are available as single sections or extending versions.



Exclusions

This Code of Practice does not cover fixed ladders such as:

- EN 14975 Loft or attic ladders;
- EN 14396 Fixed ladders for manholes;
- BS 4211 Specification for permanently fixed ladders;
- BS EN ISO 14122 Safety of machinery. Permanent means of access to machinery.

08 Risk Assessment

In the workplace, the law calls for a sensible, proportionate approach to managing risk. Before work at height commences, a competent person must complete a detailed risk assessment:

Hierarchy of Control Measures

For each step, consider what is reasonable and use 'collective measures' over 'personal measures'



When you are working in your own home, where workplace law does not apply, you should still think about the task you need to carry out and assess the risks. You can use the same risk assessment process to help you work more safely.

Planning is a vital part of working safely. When you intend to use ladders, your risk assessment should consider:

- Site
- Task
- Equipment
- People

To make this easier to remember, the factors to consider are contained in the acronym **STEP**

Site

- Is the ground or resting surface suitably dry, flat, level, firm and strong? If not, is it possible to modify the surface to make it suitable? Is the surface slippery? Bearing in mind that some surfaces, both indoors and outdoors, can be slippery even without being loose, wet or contaminated.
- Have you taken all the necessary steps to eliminate or minimise risks?
- Can the ladder be positioned correctly and at the correct angle?
- Is it possible to position a ladder close enough to the task to avoid working sideways and prevent overreaching?
- Is it possible to extend and raise the ladder safely?
- Can the ladder be tied in or otherwise stabilised? What is the best way to stabilise it?
- What measures are needed to protect other people? Do you need to cordon off the work area or take other protective measures?
- Is the weather going to prevent you from working safely? When should you delay the task?

Task

- Is the task both low risk and short duration?
- Can the ladder be climbed safely? How should you climb the ladder?
- What loads will the task create and how could they affect the stability of the ladder? Is the work going to cause the ladder to move and become unstable?
- Can you maintain a firm grip on the ladder or do you need both hands for the task?

Equipment

- Is a ladder the right piece of equipment for the job?
- What type of ladder or step do you propose to use? Is it the right class and type for the task?
- What size and material of ladder do you propose to use? Is it the right size and constructed from the right material for the task?

People

- Are the people carrying out the work competent in the use of ladders and physically suited to the task? Who has the required competency levels?
- How many people are needed for the task? Do you need help to position and secure the ladder or step?
- What PPE is required? Apart from the correct footwear and clothing, what other PPE is necessary?

When you've read and understood the information in the rest of this document, you'll find you're able to answer these questions.

LADDER ASSOCIATION
Risk Assessment guidelines for use of LEANING LADDERS post equipment selection

NAME of person completing assessment: _____

SITE: _____

Activity: Using Leaning Ladders for access or in a work place for cleaning, maintenance, painting, decorating, ceiling work, electrical work, plumbing, inspections etc.

Hazards (most common):

Overreaching:

1. Ladder become
2. User; Ladder; too
3. User; Ladder too persons below

People at Risk: U

Risk assessment guidelines for leaning ladders and stepladders are available from the Ladder Association website

LADDER ASSOCIATION
Risk Assessment guidelines for use of STEPLADDERS post equipment selection

NAME of person completing assessment: _____

SITE: _____

Activity: Using Stepladders in a work place for painting, decorating, ceiling work, electrical wiring, light fixings, plumbing, inspections etc.

Hazards (most common):

Overreaching:	Sideways loading e.g. drilling:	Losing balance:
1. Steps become unstable	1. User pushes himself off Steps and falls	1. User loses balance
2. User; Steps, tools fall	2. User; Steps, tools strike persons below	2. User grabs Steps, and Steps become unstable
3. User; Steps, tools strike persons below		3. User; Steps, tools fall
		4. User; Steps, tools strike persons below

People at Risk: Users and others on site

09

Make Sure it's Right to Use a Ladder

At a glance

- Ladders can be suitable for low risk, short duration tasks;
- You should be able to keep one hand on the ladder at all times;
- The ground must be dry, flat, firm, strong and secure;
- Leaning ladders must rest against a stable surface;
- Ensure the area is free of hazards;
- Keep your belt buckle (or navel) within the sides of the ladder.

Ladders can be suitable for tasks that are both **low risk** and **short duration**.

They shouldn't *automatically* be your first choice for work at height, but in some circumstances, may be the most appropriate tool for the job.



Low-risk & Short duration

In the workplace, the law says ladders can only be used if a risk assessment shows that equipment offering a higher level of fall protection (e.g. equipment with platforms and guardrails which would prevent a fall) isn't justified. This may be because the work is both low risk and short duration, or because there are existing workplace features that cannot be altered and which prevent the use of that equipment.

In the home, you still need to decide if the task is both low risk and short duration. If it's not, a ladder is probably not the best solution. But if the site has features which would prevent the use of other safer equipment, then a ladder may be your only choice.

What is a short duration task? As a guide, it is a task that requires you to be staying on a ladder for no longer than 30 minutes at a time.

Only use ladders in situations where they can be used safely, e.g. where the ladder will be level and stable, and it can be secured to prevent it slipping.

Here are some of the factors to consider before you choose a ladder:

Can you maintain a grip?

Always keep at least one hand on the ladder when climbing and working. If you can't do this for longer than a brief period, for example you need both hands to hold a nail while you start to knock it in, follow this advice:

Leaning ladder

If you're using a leaning ladder, take other measures to prevent a fall or, if you were to fall, to mitigate the consequences. Such measures might include the use of personal fall protection like work positioning equipment that would prevent a fall or fall arrest equipment like netting that would reduce the effects of a fall.



Maintain a handhold when climbing a ladder

Stepladder

If you can't maintain a handhold while using a stepladder, you need to determine if that's acceptable, considering:

- The height of the task;
- If a handhold will be available whilst you are on the ladder;
- If it is a light task;
- That no side loading of the ladder will occur;
- That no overreaching will occur;
- If the stepladder can be tied or otherwise prevented from moving;
- That, when you cannot maintain a handhold, you will still need to maintain three points of contact by making sure you have both feet firmly on the same tread (or on the platform) and that your body will be supported by the ladder.

Are the ground conditions suitable?

Ensure the ground/resting surface is suitably dry, flat, firm, strong and secure. The surfaces on which the feet and the top of a ladder rest or the ground on which the feet of a step stand should be:

Dry - Not slippery, free from mud, moss, algae, leaves, oil or other contaminants that would reduce the grip of the ladder's feet. Free of loose materials like sand, packaging materials, etc. Slippery surfaces and surfaces that are contaminated should be washed or cleaned. If it's not possible to sufficiently remove the contaminants, take other measures to prevent the ladder from slipping. Shiny or smooth floor surfaces can be slippery even without being wet or contaminated.

Flat - Without bumps, differences in level, gaps, or other variations that would cause the ladder to become unstable. On uneven surfaces, the ladder should be positioned to avoid the variations. Avoid placing a ladder near to an edge or stair, to avoid any risk of slipping off. If possible, level the variations but do not stand the feet of a ladder on bricks, small pieces of wood or other items as they may become dislodged when working.



Ensure the floor / ground isn't contaminated

Level - Without slopes that would cause the ladder to become unstable. Do not use a ladder on excessive slopes. If you need to work on small slopes, take measures to prevent the ladder slipping. Refer to the manufacturer's pictograms on the side of the ladder. Use proprietary levelling devices, not ad-hoc packing such as bricks, blocks, timbers etc.

Firm - Sufficiently solid to prevent the feet of the ladder from sinking, deforming the surface or sliding. Do not use a ladder on soft ground or lawns. If the surface is not firm (paving slabs, floors, etc) stand a ladder on a large flat wooden board or another suitable material that will not slip and is of sufficient thickness, to prevent the feet sinking. Some coverings like rugs on shiny floors may also create an unstable surface.

Certain types of ladders and accessories are available to help mitigate the risk of working on unlevel or soft ground.

Strong - Sufficient to support the weight of the ladder and the person on it without movement, including any tools and materials they will carry, and any forces they may exert when working. Don't stand ladders on movable objects, such as pallets, bricks, lift trucks, tower scaffolds, excavator buckets, vans or mobile elevating work platforms.



Do not use the ladder on uneven or soft ground

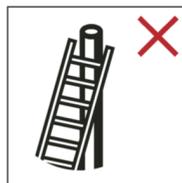
What will the ladder lean against?

You need somewhere stable to rest a leaning ladder against. Avoid unsuitable surfaces, such as gutters or on tiles or other surfaces that may give way. Don't lean ladders against hedges or trees.

Special ladders are available for working against telegraph poles and similar structures or surfaces.



CORRECT – use of a stand-off device to ensure a strong resting point. Do not rest a ladder against weak upper surfaces such as glazing or plastic gutters. Follow the user instructions.



Do not lean a ladder against a pole (unless it has been specifically designed for that use) or against other unsuitable surfaces

Will the ladder be close enough to the task?

You should be able to position the ladder close enough to the task that you don't overreach. As a guide, your belt buckle (or navel) should remain within the sides of the ladder. Stand centrally and keep both feet on the same rung or tread. If necessary, come down and move the ladder. It won't take long and will minimise risk of serious injury or even save your life.



INCORRECT – *overreaching and not maintaining three points of contact*

Where possible, position the ladder face-on to the task. Stepladders are designed to work in this way and are more stable if used in this direction.

Avoid working side-on, as it takes very little effort to push over in this direction. Simply pushing a drill against a wall or overreaching to the side could easily result in the ladder toppling over. Never work facing backwards on a ladder, as it could become very unstable.

Duration of task

Ladders can be suitable for low risk and short tasks. As a guide, a short duration task is one that requires you to be on a ladder for no longer than 30 minutes at a time.

Further reading

In the workplace, the law calls for a sensible, proportionate approach to managing risk. Further guidance on how to decide whether a ladder is the right type of equipment for a particular task is provided in *Working at height: A brief guide*, Health and Safety Executive, INDG401.

More information for people planning to work near power lines is available in *Avoiding danger from overhead power lines*, Health and Safety Executive, HSE GS6.

10 Select the Right Ladder

At a glance

- Certain types of ladders may be more suitable for your task;
- Use a 'Professional' class ladder at work;
- 'Non-Professional' ladders are not suitable for use in the workplace;
- Fibreglass ladders should be used for any works where electricity is involved;
- Check the maximum safe working height.

Ladders come in all shapes and sizes and it's down to you to find the most suitable one for each task. This section guides you through the areas to consider.

a) Select the right type

As we covered on pages 7 and 8, there are many different types of ladder available. Ask the manufacturer or supplier for help choosing.

b) Select the right class

Ladders and stepladders are classified according to the general conditions and possible frequency of use:

Ladders for professional use:

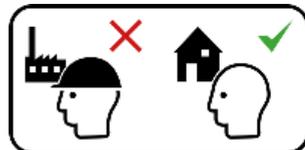
These ladders are the most durable, having been designed to withstand more demanding conditions. They're intended to be used at work, but there's no reason you can't use them at home too.



You can use the ladder at work or home

Ladders for non-professional (domestic) use:

These ladders are intended for lighter, occasional use. They should only be used for home DIY, never in any professional setting.



You can use the ladder at home, but not at work

The key difference between the two classes is their durability. Both professional and domestic (non-professional) EN 131 ladders can hold 150kg in weight, including the user, their tools and any equipment.

The standard for portable ladders is EN 131. In the old ladder standards, there were three classes for ladders: domestic, industrial and light trades.

You might still own ladders using these old classifications, but you won't be able to buy new ones.



Maximum total load that you can place on the ladder



c) Select the right material

Ladders are made of materials including aluminium, steel, wood and fibreglass. Each material has properties that make the ladder suitable for some applications and unsuitable for others.

Aluminium

Aluminium ladders are lightweight, making them easy to move around and position. Don't use them in locations where there's a risk of electrical shock as they are very good conductors of electricity.

Fibreglass & Wood

For work where electricity is involved, use a ladder made of fibreglass or wood. If they're kept clean and dry, these materials have some electrically insulating properties. However, you need to take care with wooden ladders - if they are too dry they can crack but, if they are wet, they can conduct electricity.

Steel

Steel ladders are generally heavy and more difficult to move around, but they're durable. They may be suitable for longer-term temporary access in scaffolding applications. Steel is also a popular material for mobile steps, often with a painted finish.



Examples of different materials used for ladders:

*Left - Aluminium
Centre - Fibreglass
Right - Timber*

d) Select the right height

Choose a ladder that's long enough for the job. To determine this, you need to check the maximum safe working height – that's the height you can reach safely, without overreaching, when working at the top of a ladder. Manufacturers normally provide this information in their product data sheets or catalogues but if not, you may need to work it out from the ladder's maximum length and the standing height stated on the ladder labels.

Leaning ladders

Be aware that the maximum length of a ladder shown on the ladder labels and in the instruction manual is not the maximum safe working height. Remember, your leaning ladder should be set at an angle of 75 degrees and you must not stand on the last 3 rungs.

Stepladders

The same applies to stepladders. The open or closed height of a stepladder shown on the ladder label and in the user instructions is not the maximum safe working height. Remember never to use a stepladder as a leaning ladder in the closed position. It must be fully opened and any locking devices properly engaged.

On a stepladder without a platform, you cannot stand on the top tread or the two treads below. If it has a platform then you can stand on that, but you must never stand on the hand or knee rail.

Combination ladders

On three-part combination ladders in stepladder mode, the last climbing rung on the top section will be marked on the ladder. The last climbing rung is the fifth one from the top, which means you cannot stand on the top four rungs in that mode.

You need to allow extra length in the different types of ladder to account for these factors.

Never overreach and never stand your ladder on boxes, bricks, blocks or similar items to gain extra height.

Ladders on hire

Hire companies should provide information and advice on the suitability of ladders for any particular task. However, it's your responsibility to select suitable access equipment for a task.

11 User Instructions

At a glance

- Read the user instructions before using a ladder;
- This information is provided for your safety.

Ladder manufacturers and suppliers must provide comprehensive user instructions with their products. This comes in the form of an instruction manual and labels on the ladder.

It's important you read all instructions before using the ladder. It gives you key information to help keep you safe, including for example, how to use, inspect, maintain and store the ladder.

If you don't already have them, request user instructions from the manufacturer or supplier to read and retain for future reference.



Follow the user instructions

12 Ensure there are Sufficient People to do the Task

At a glance

- Only one person can work from a ladder;
- You may need more than one person to raise, position and secure it.

Only one person can work from a ladder. However, you may need help to raise, position and secure it. This will depend on the size and weight of the ladder.

Follow guidance on manual handling to ensure you don't put yourself or others at risk.

In the workplace there are regulatory requirements for lone workers, so take these into consideration if you're working by yourself. For example, plan what to do if an accident occurs.



Only one person can work from the ladder

Further reading

Manual handling at work: A brief guide, Health and Safety Executive, INDG143

Protecting lone workers: How to manage the risks of working alone, Health and Safety Executive, INDG73

13

Personal Protective Equipment (PPE)

At a glance

- Wear suitable shoes;
- Wear suitable clothes;
- Consider wearing suitable gloves;
- Risk assess before using personal fall protection equipment.

Personal protective equipment (PPE) protects the user against health or safety risks at work. It can include items such as safety helmets, gloves, eye protection, high-visibility clothing, safety footwear and safety harnesses.

When using a ladder, you must wear suitable clothing and footwear. Strong soled, flat shoes with a good grip help to prevent any slips.

Tie laces properly and clean off any mud, oil or other contaminants before you climb a ladder.

Wear clothes that are well-fitted, properly fastened, and free of tears or loose parts so they can't get caught on the ladder while you're working.

Suitable properly fitting gloves can protect your hands in both cold and hot weather. Anti-slip grip gloves will help you maintain a better handhold and help to stop your hands from slipping as you climb or descend and when handling the ladder.

The selection and use of safety harnesses and work positioning or fall arrest equipment should only be undertaken after a detailed assessment by a competent person, taking into account the suitability of the equipment, including the effect of an arrested fall on the ladder and its stability.

Not all ladders will be able to resist the loads that may be generated, so check first with the supplier of both the ladder and the equipment.



Wear suitable footwear

14 Pre-Use Checks

At a glance

- Carry out a visual and functional check every time you use a ladder;
- Check each part of the ladder for obvious defects;
- If you spot a defect, do not use the ladder.

Just because your ladder was safe to use last time, it doesn't mean it's safe to use this time. Any number of things could have happened since then to damage the ladder and compromise its safety. Ladders can be damaged while they are in storage and transportation as well as in use.

The aim of a pre-use check is to quickly establish whether a ladder is safe to use NOW. They are for the immediate benefit of the ladder user.

When to do a pre-use check

A pre-use check should be carried out by the competent user:

- At the beginning of the working day; and
- After something has changed, e.g. a ladder has been dropped, left unattended, transported on a vehicle or moved from a dirty area to a clean area (check the state or condition of the feet).

What to check for

A pre-use check is a visual and functional check. The user should be able to identify obvious defects on a ladder that prevent its correct and safe use, such as (but not limited to):

Generally - Check that the ladder is not twisted, bent or otherwise distorted? The stiles (sides), rungs or treads should be straight. There should be no looseness in the joints and connections.

Stiles (sides) - Make sure they aren't bent, bowed, twisted, dented, cracked, corroded or rotten, or of different lengths, as the ladder could buckle or collapse.

Feet - If they are missing, loose, excessively worn, damaged or corroded, the ladder could slip. Also check the ladder feet when moving from soft/dirty ground (e.g. dug soil, loose sand, stone, a dirty workshop floor) to a smooth, solid surface (e.g. paving slabs), to make sure the actual feet and not the dirt (e.g. soil, chippings or embedded stones) are making contact with the ground.

Rungs and steps (treads) - Check none are missing, loose, bent, excessively worn, corroded or damaged and the fixings are secure. They must be clean - if they are contaminated, they could be slippery.

Locking mechanism - Does the mechanism work properly? Are any of the components or fixings bent, worn or damaged? If so, the ladder could collapse. Ensure any locking bars are fully engaged before use.

Stepladder platform - If it is split or buckled, the ladder could become unstable or collapse.

Hinges - Check that hinges between front and rear sections are not damaged, loose or corroded and the action of hinges must be free through their movement.

Tie rods - Check that tie rods on wooden ladders aren't missing, bent or corroded.

Push up or rope operated extension ladders - Check the sections slide freely and the brackets that hold the sections together at the top are secure and not damaged. Check the rung hooks or swinging locks at the bottom of the ladder are secure and not damaged, operate correctly and locate properly on the rungs. Check ropes are in good condition, undamaged and run freely. Check interlock clips which lock the sections together are not damaged, are secure and operate correctly.

Makeshift repairs - Check there are no makeshift repairs to any part of the ladder.

Fixings (usually rivets, screws or bolts) - Check they are not missing, loose, or corroded.

Welds - Are any cracked or corroded?

Contaminants - check that the entire ladder is free from dirt, mud, paint, oil or grease etc.

If you spot any defects, DO NOT use the damaged ladder, and report these defects to your employer.

The user instructions may identify additional items that need to be checked, especially for specific ladder types like telescopic or multi hinge joint ladders.

Pre-use checks do not need to be recorded. They are a visible check by the user to make sure the equipment is safe to use NOW.



Do not use the ladder if it has a visible defect

Ladders on hire

If you've hired a ladder from a hire company, it is still your responsibility to ensure the ladder undergoes pre-use checks.

Checklist

As a guide, only use ladders that:

- Have no visible defects;
- Have an up-to-date record of the detailed visual inspections carried out regularly by a competent person;
- Are suitable for the intended use;
- Have been maintained, stored and transported in accordance with the user instructions.

If you have any concerns, **do not** use the ladder.

15

Setting a Ladder at the Correct Angle

This section applies only to:

- leaning ladders;
- combination or multi hinge ladders being used as leaning ladders.

At a glance

- The ladder must be at the correct angle (follow the 'one-in-four' rule);
- Ladder rungs must be horizontal.

Any leaning ladder should be at a 75 degree angle to the ground. Any less and it may break or slip away at the base. Any steeper and it may slip sideways or outwards from the top.

The simplest way to achieve the correct angle is to follow the 'one-in-four' rule. This means for every four measures up the 'wall' where the ladder is extended, you need to position the base of the ladder one measure out.



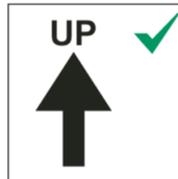
CORRECT - Ladder showing the correct 1 in 4 angle

Some ladders have an integrated spirit level or labels with lines that are vertical when the ladder is at the correct angle.

Only use the ladder in the direction as indicated and check that the rungs are horizontal.



Correct angle for using the ladder



Make sure you know what way up the ladder goes

This section applies only to:

- Leaning ladders;
- Combination or multi hinge ladders being used as leaning ladders.

At a glance

- Take care when extending ladders;
- Raise the ladder carefully, following the processes laid out in this section or the user instructions;
- You may need help to move and raise longer or heavier ladders;
- If the ladder has an stabiliser bar, fit it correctly before use.

Extending a ladder

If using an extension ladder and you only need to extend it less than 2m, it may be possible to do this after raising the ladder into position. You can do the same with rope-operated ladders.

For longer or very heavy ladders, extend the ladder to the correct height before raising it.

Follow this advice:

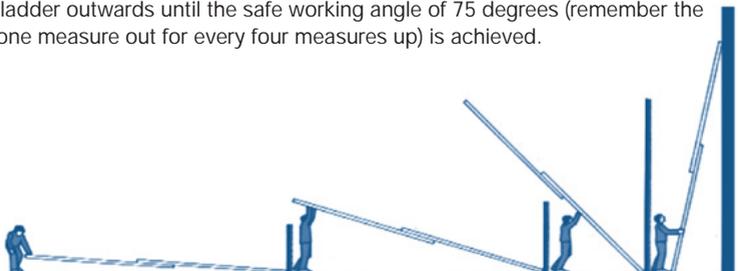
- Be careful of striking overhead obstructions whenever you raise a ladder;
- Check that locking devices are fully secured before using the ladder;
- Don't try to move or extend a ladder while standing on the rungs.

Raising a ladder**One person**

You may need help to position and raise a ladder safely. If the ladder is short and light enough to be raised by one person, proceed as follows:

- Place the foot of the ladder against a solid surface such as the base of a wall, to prevent it sliding away and lifting up;
- Raise the top end above your head;
- Facing the base of the ladder, slowly raise the ladder up by holding onto the rungs and walking forwards until the top of the ladder can be rested against the supporting surface;
- Slide the base of the ladder outwards until the safe working angle of 75 degrees (remember the 'one-in-four' rule i.e. one measure out for every four measures up) is achieved.

*How to raise a ladder
by yourself*

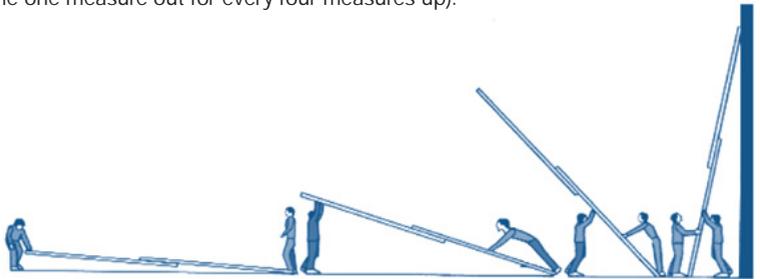


Two people

If the ladder is longer and heavier than a single person can manage safely, two people should raise the ladder by proceeding as follows:

- Position the base of the ladder at the spot where it is to stand and get one person to place one foot on the bottom rung to prevent the ladder sliding and lifting as it is raised;
- The second person should raise the top end of the ladder above their head;
- The second person should face the base of the ladder and slowly raise the ladder up by holding onto the rungs and walking forwards;
- The person at the base of the ladder can assist by standing with both feet on the bottom rung, holding onto one of the rungs above, at approximately shoulder height, pulling the ladder towards them whilst leaning back thus using their body weight as a counterbalance to assist the person who is lifting the ladder;
- Raise the ladder until it's nearly vertical and the second person raising the ladder has full control and the ladder is balanced. The first person should then step off the bottom rung and assist the first person to rest the ladder against the supporting surface;
- Check the base of the ladder is positioned to provide a safe working angle of 75 degrees (remember the 'one-in-four' rule ie one measure out for every four measures up).

How two people should work together to raise a ladder



In certain circumstances, neither of these methods may be suitable. In these cases, consider alternative equipment such as rope-operated ladders. Don't undertake any activities with which you feel uncomfortable.

Base width components

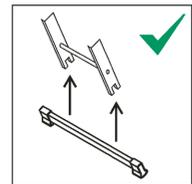
Some extension ladders and ladders that may be used as extension ladders are supplied with a bar component (sometimes referred to as a stabiliser bar) which increases the base width of the ladder. You must fit this component before first use, in accordance with the user instructions, using the specified tools. Never use the ladder without correctly fitting the bar component first.

Some ladders have stabiliser bars that can be temporarily adjusted or repositioned (but not removed) by the user to allow it to be transported or used where the bar would prevent the ladder being close to the work. If your ladder has this adjustment, you can use it in accordance with the user instructions.

Never remove the stabiliser bar and use the ladder without it.

A stabiliser bar increases the base width of a leaning ladder but it doesn't reduce or remove the requirement to secure the ladder, e.g. by tying it in.

See section 18 for more information on securing a ladder.



Ensure you connect the stabiliser bar

Setting Up a Stepladder Correctly

This section applies only to:

- Stepladders;
- Combination or multi hinge joint ladders being used as stepladders.

At a glance

Your stepladder is ready to use when:

- It's open fully;
- Locking devices are engaged;
- It's level;
- All four feet are in contact with the ground;
- The ladder is facing the work activity (unless a risk assessment shows it's safer to work side on).

REMEMBER - Do not use a stepladder as a leaning ladder.

Open the ladder fully before use. Ensure restraint devices can be fully opened and any locking devices are engaged. They may be fitted with ropes, webbing or folding metal locking devices to restrain the opening of the front and rear sections. Make sure locking devices are locked in the open position. Check the locking hinges on multi hinge joint ladders are working correctly and are properly engaged in accordance with the user instructions.

Check all four ladder feet are in contact with the ground and the steps are horizontal in both directions (ie it's not on a slope).

Position the ladder to face the work activity and not side on. However, sometimes a risk assessment might show that it's safer to work side on, e.g. in a retail stock room when you can't engage the ladder locks to work face on because of space restraints in narrow aisles, but you can fully lock it to work side on.

If using a ladder with a platform, make sure the platform is locked in the down position before you climb them.

Do not use a stepladder as a leaning ladder, unless it's designed for this, as it will be very unstable.

A combination ladder may have special clips or braces, which must be positioned and operated in a certain way. Read the manufacturer's instructions and the warning labels on the ladder.



Open the stepladder fully



Engage the locking device



Do not use a stepladder as a leaning ladder

18 Securing Your Ladder

At a glance

- To stop your ladder slipping, tie it to a suitable point;
- If that's not practical, use an effective ladder stability device;
- If that's not possible, securely wedge the ladder (e.g. against a wall at the correct angle);
- As a last resort, foot the ladder.

Setting a ladder up correctly will help prevent it from slipping or moving, but you should also secure the ladder using additional means. The options for this are:

- Tie the ladder to a suitable secure point, making sure both stiles are tied. You can tie in at the top or near the base or both;
- Where this is not practical, secure the ladder with an effective ladder stability device;
- If this is not possible, securely wedge the ladder (e.g. wedge the stiles against a wall - but remember it must still be positioned at the correct angle and close enough to carry out the task without over reaching);
- If you cannot achieve any of these options, foot the ladder. Footing is the last resort as it is the least effective way of preventing a ladder slipping.

In the workplace you will need to justify your chosen method as part of your risk assessment.

Tying in

Tying in is the first, most effective and preferred option for preventing a ladder from slipping. Whenever you tie in any ladder, consider these points:

- Make sure the ties are sufficiently strong for the task; strong rope, webbing straps, certain nylon ties or purpose-made devices are good options. Be careful with some synthetic ropes, they can degrade with age and exposure to the sun, compromising their strength and effectiveness;
- Ties should be tensioned just sufficiently to prevent movement of the ladder. Never over-tighten rope or webbing ties fitted with ratchet devices as you may induce additional loads which, when combined with your own weight, can cause the ladder or step to be overloaded and break;
- Always fix the ties around both sides of the ladder and never tie onto a rung or tread;
- Tie-in to a secure fixing. You can tie into existing features if you know they are secure. If no existing features are available, you may need to fit anchors with eyebolts or other fixings to tie into, or you can drive stakes into solid and firm ground to create tie-off points. Anchors should be selected, installed and tested in accordance with BS 8539. Do not tie into, or rest the ladder against, weak upper surfaces such as plastic guttering, drainpipes or glazing.



CORRECT
ladder tied at top stiles



CORRECT
tying near the base

Stepladders may need to be prevented from moving or slipping if, for instance, they are used side on to the task and where there are horizontal side loads.

If you think you need to tie a stepladder then consider if it's the most appropriate choice of equipment for the task. If you do decide to tie in a stepladder, take care where, and how, you fix the ties. Never tie onto a tread.

Ladder stability devices

If you cannot tie in a ladder to prevent movement then supplementary stability devices are available that, when selected and used correctly, may help to prevent a ladder from slipping.

The Ladder Association welcomes and encourages any technology which improves the safety and stability of ladders. However, although there are many claims, it is not yet clear that any ancillary ladder stability devices that are currently available are effective, i.e. they significantly aid the prevention of **all** unstable states which could arise from the improper use of ladders. Until there is an agreed design standard for ancillary stability devices for ladders, the Ladder Association can make no recommendations in respect of these products.

However, individual ladder manufacturers may, after careful consideration, allow the use of some ancillary stability devices with their products. You should consult the manufacturer of your ladder for their guidance before using such a device.

The Ladder Association categorically does **not** recommend any ancillary product which:

- Requires the invasive alteration of the completed ladder or stepladder (for instance, by drilling into the product and applying screws, bolts, rivets or other fixings); or
- Relies on the strength of the ladder components for its connection to the ladder (for instance, a device which relies on straps or clamps), without the specific permission of the ladder manufacturer, since such devices could materially affect the performance characteristics of the ladder.

If a ladder manufacturer has given specific permission for an ancillary stability device to be used with their product(s), the ladder manufacturer must also undertake, as an express condition of that permission, to thereafter advise the ancillary stability device manufacturer of any and all changes to the ladder design or specification which may materially affect the connection upon which the device relies (for instance, any change to the material dimensions or mechanical properties of the relevant ladder components).

Wedging a ladder

If it is not possible to tie a ladder and you cannot identify a suitable and effective stability device, you could securely wedge your ladder, for example against a wall.

However, it must still be at the correct angle and close enough to the work to avoid overreaching.

Footing

If it is not possible to tie a ladder or use an effective stability device or to wedge the ladder to prevent it moving, then footing is the last resort to preventing it moving. Footing is of limited benefit for stabilising a ladder. However, if other methods are not possible, ask another person to secure the base of the ladder by footing. They must do this properly to prevent the ladder becoming unstable and must maintain the footing position when you are climbing, working and descending.

As you'll learn in section 21 (Hazards), leaning ladders can become unstable in four ways: base slip, top slip, flip and top contact. Footing a ladder can help improve resistance to base slip and arguably flip.

Research by Loughborough University for the Health and Safety Executive (*Evaluating the performance and effectiveness of ladder stability devices, 2004*) does not indicate any significant advantages of footing for any of the other unstable states.

There are three possible footing methods which could be considered:

a) NOT RECOMMENDED: Standing on the bottom rung with both feet

Avoid this method as it requires two people to stand on the ladder at one time, contrary to manufacturers' recommendations.

b) Standing with one foot in the centre of the bottom rung, with one foot behind you on the ground and a hand firmly on each stile of the ladder at shoulder height.

This method has the advantage that it can effectively apply forces towards the ladder using both hands and using the back leg as a brace and is possibly a more stable comfortable position than the alternative method c.

It is important not to apply any unbalanced excessive load to one stile of the ladder, as this could induce a flip condition.

This position may be less suitable when footing for longer tasks.

c) One foot positioned hard against each stile, and a hand firmly on each stile of the ladder at shoulder height.

This method has the advantage that those footing the ladder are not encouraged to put any additional load on the bottom rung.

It may be argued that the person footing the ladder has a slightly less stable position than method b.

It is important not to apply any unbalanced excessive load to one stile of the ladder, as this could induce a flip condition.

On certain types of ladders this method may not be possible if the bottom ends of the ladder stiles are not in contact with the ground because of an integral component which increases the width of the ladder base.

Climbing and Descending Safely

At a glance

On your way up and down the ladder:

- Keep a firm grip on the ladder;
- Avoid carrying anything in your hands;
- Face the rungs or treads;
- Use the handrail if there is one but if there isn't, hold the rungs or the stiles (sides).

When climbing or descending keep a firm grip on the ladder. Only carry light tools and materials but avoid carrying them in your hands, for example by using a tool belt or backpack.

Always face the rungs or treads. If you have your back to the ladder it will be very unstable, your feet will not be secure on the rungs or treads and you cannot maintain a handhold. Never slide down the stiles (sides).

Leaning ladders

If the ladder has a handrail, use it. If not, there are two climbing methods and you should select the most appropriate method for the particular ladder you're using and the nature of the work being undertaken:

a) Holding the rungs

An advantage of this method is that the anti-slip surface of the rung can improve grip, and its shape and size make it easier to wrap your fingers completely around the rung, arguably making it easier to maintain a secure grip.

b) Using the stiles

An advantage of this method is that you can slide your hands up or down the stile and therefore maintain continuous contact with the ladder. However, the stiles can be quite large and therefore difficult to wrap your fingers around completely. They may also have obstructions such as stops, brackets and the changes of continuation of stile section due to the overlaps on multiple section ladders.

Stepadders

There may be circumstances when it is not possible to maintain a handhold while climbing or descending a stepadder, such as carrying a box or pasted wallpaper. Further consideration must be given to the risks involved in such work – see section 9 (Make Sure it's Right to Use a Ladder).

Working from a Ladder

At a glance

While working on a ladder:

- Maintain three points of contact with the ladder wherever possible;
- Take extra measures if you can't do this for more than a brief period;
- Stand centrally;
- Keep both feet on the same rung or tread;
- Do not stand on the last 3 rungs of leaning ladders;
- Do not stand on the last 3 treads of stepladders, unless there's a platform;
- On stepladders with a platform, never stand on the hand or knee rail;
- On three-part combination ladders *in stepladder mode*, do not stand on the top 4 rungs.

Maintain a grip

As covered in the last section, you should maintain a firm grip on the ladder as you climb it. When you reach your working height, you can transfer your hand to grip a secure feature within reach but that does not mean you can climb any higher than the maximum permitted for the type of ladder. Maintain three points of contact with the ladder wherever possible.

Where you cannot do this, other than for a brief period (for example, to hold a nail while starting to knock it in, start a screw etc), your three points of contact with a leaning ladder can be two feet and your body. You will need to take other measures to prevent a fall or mitigate the consequences if one happened.



CORRECT – user maintaining three points of contact



INCORRECT – overreaching and not maintaining three points of contact

On a stepladder, when deciding whether it is safe to carry out a particular task where you cannot maintain a handhold (e.g. to put a box on a shelf, hang wallpaper, or install a smoke detector on a ceiling), the decision needs to be justified. Follow the guidance in section 9 to help you with this.

Position

Stand centrally and keep both feet on the same rung or tread.

Working height

Leaning ladders

Never stand on the top three rungs of any leaning ladder. The last climbing rung may be identified with a symbol like this on a label:



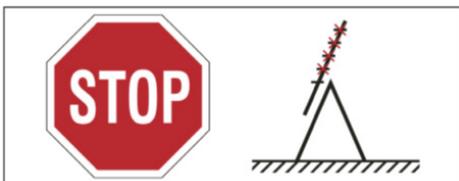
Do not stand on the last 3 rungs of leaning ladders

Stepladders and other ladders with stepladder mode

On a stepladder without a platform, you cannot stand on the top tread or the two treads below it. If it has a platform then you can stand on that, but never on the hand or knee rail.



On three-part combination ladders *in stepladder mode*, the last climbing rung on the top section will be marked on the ladder. It's the fifth rung from the top, meaning you cannot stand on the top four rungs in that mode. There may be a symbol on the stepladder like this:



On three-part combination ladders in stepladder mode, do not stand on the top 4 rungs

Mobile steps

When using mobile steps, you can stand on the platform to work but you should **never climb onto the guardrail**.



21 Hazards

At a glance

While working on a ladder:

- Take steps to protect people around you;
- Adverse weather presents a risk;
- Don't overload the ladder;
- Stay well clear of electricity.

Protecting other people

When using ladders, consider the risks to others. For example, what measures do you need to take to protect others if the ladder slips, or if tools or material fall from height? How can you avoid other people or vehicles accidentally colliding with a ladder while in use?

There are precautions you can take to help prevent these incidents. If there is a risk of material or falling debris, cordon off the work area below and provide a reasonable diversion, making sure that walkways and 'safe zones' are clearly marked. Anyone operating in the work area should wear PPE, particularly a hard hat. You can minimise the risk of falling objects by using tool belts or tethers.

To avoid accidental contact with the ladder while it's in use, you could have someone at the foot of the ladder to act as a look out, and you should never block an emergency exit, doorway or window.

Remember that in the workplace, protecting others should be considered in your risk assessment.

Adverse weather conditions

Adverse weather conditions, such as wind, rain, snow and ice, can cause significant additional risk when using a ladder. Do not use a ladder outside in such conditions.

Wind may cause a ladder to become unstable very quickly, particularly in areas where wind funnelling can occur, like outside between tall buildings or inside in shafts or stairwells.

Rain will make the ground, resting surfaces and the rungs, treads and platforms slippery. Snow and ice have the same effects, so take extra care. Do not work from a ladder if there is any risk of lightning.

Before planning work from a ladder, check the weather forecast – if the forecast is poor, delay the work until conditions are more favourable.

Over-loading

Ladders are manufactured for a load capacity that includes the combined weight of the user, their tools and any materials on the ladder - the maximum total load. You must not load ladders beyond their maximum total load as this will affect the safety and stability of the ladder.



Instability

Consider how your work could affect the stability of the ladder you are using.

Leaning ladders

Leaning ladders become unstable in four ways:

1. Base slip - The base of the ladder slides away;
2. Top slip - The top of the ladder slips sideways;
3. Flip - The ladder rotates;
4. Top contact - The top of the ladder comes away.

Tie-in a ladder to minimise the risk of it becoming unstable – see section 18 for more details.

Stepladders

Stepladders become unstable in three ways:

1. Sideways tip- The step falls over sideways;
2. Back tip - The step falls over towards the user;
3. Base slip - The feet of the step slide on the ground.

Work with care to minimise the risk of stepladders becoming unstable - see section 18 for more details.

Things to avoid with any ladder

- **DON'T** overload them – consider your weight and the equipment or materials you are carrying before working at height.
- **DON'T** apply excessive side loads - sideways forces, such as side-on drilling through solid materials (e.g. bricks or concrete) can make ladders unstable very quickly. Where side loadings cannot be avoided, tie-in to prevent the ladder from tipping over. Otherwise, use a more suitable type of access equipment.
- **DON'T** carry equipment which is heavy or difficult to handle.
- **DON'T** overreach – if your belt buckle (or navel) is outside the sides of the ladder or you need to stretch upwards to work, you are already applying dangerous loads which can make the ladder unstable. Stop immediately and:
 - move the ladder closer to the work;
 - climb further but not beyond the last safe working rung or tread;
 - extend the ladder if possible, or use a taller one.

Stop work immediately if:

- You are unsure if the ladder is stable – descend carefully and re-assess how you should complete the task; or
- You are working and feel the ladder start to move – again, descend carefully and re-assess how you should complete the task.



Do not apply excessive side loads



Do not carry heavy objects

Electrocution

Contact with live overhead electrical cables, lighting or other electrical equipment can cause electric shock, severe burns and other injuries, fires and death.

The hazard of electrocution can be avoided by staying well clear of live electrical equipment and particularly high voltage overhead cables. Do not work within 6m horizontally of any overhead power line, unless it has been made dead or protected with insulation. Do not use the ladder where electrical risks occur. In the case of any unavoidable electrical work, use a non-conductive ladder (e.g. fibreglass or timber).

22 Using Ladders for Access

At a glance

While working on a ladder:

- Leaning ladders can be used to access another level;
- Stepladders cannot be used to access another level;
- Use self-closing gates to protect access points.

Leaning ladders

When using a leaning ladder to access another level, it should be tied and extend at least 1m above the landing point to provide a secure handhold when climbing on and off.

At ladder access points, install a self-closing gate.



Your ladder should extend 1m above your landing point

Stepladders

Do not step off a stepladder or any ladder in stepladder mode, onto another surface. Stepladders should not be used to access another level as they are not designed for this purpose.



Do not step off the side of a ladder - the stepladder can't be used for accessing another level

23 Roof Ladders

Roof Ladders should be Certified to BS 8634.

The HSE's guidance on roof work can be found in HSG33 (hse.gov.uk/pubns/books/hsg33.htm). It contains invaluable guidance and information about working on roofs and is vital reading in conjunction with the following specific information about roof ladders.



If you are considering using a roof ladder for roof work then the Ladder Association makes these recommendations as current best practice:

- In the workplace, just like for any other type of ladder, carry out a risk assessment justifying the use of a roof ladder (see section 8);
- Like any other ladder, read and follow the user instructions for the roof ladder you are using;
- If you are using a leaning ladder to deploy, access and recover the roof ladder, then the leaning ladder should be properly tied to prevent movement (see section 18 of this document). Other methods of securing the leaning ladder are unlikely to be effective, because of the loads generated in deploying and recovering a roof ladder and from one ladder to another;
- Ties should be tensioned just sufficiently to prevent movement. Never over-tighten rope or webbing ties fitted with ratchet devices. In doing so, you may induce additional loads which, when combined with your own weight, will cause the ladder to be overloaded and break. Always fix the ties around both sides of the ladder and never tie onto a rung or tread;
- Climbing a leaning ladder whilst lifting, carrying, deploying, transferring to and from, and recovering a roof ladder requires great care. A manual handling assessment should be carried out and you should consider carefully if the person doing the work (that might be you) is physically capable and can carry out the required actions without injury;
- If you are using a leaning ladder to deploy and recover the roof ladder, you'll need to remove both hands from the leaning ladder for longer than a brief period (see section 9). This means you will need to take other measures to prevent a fall or to mitigate the consequences of the fall;
- If you are using a leaning ladder to deploy and recover the roof ladder, it can require the operator to work "off centre" to the leaning ladder. However, they should still keep their belt buckle (or navel) within the sides of the leaning ladder;
- The roof ladder must be secured to prevent it moving. If you are using a properly tied leaning ladder to access the roof ladder, then you might secure the roof ladder to the leaning ladder. However, do not use anything that might damage the ladders;
- There may be existing structural features on the roof such as chimney stacks that could provide a suitable tie point, but do not use anything weak like an aerial post or guttering. If you need to fit anchors with eyebolts or other fixings to tie into, the anchors should be selected, installed, and tested in accordance with BS 8539;
- If you are using personal fall protection equipment which is connected to the ladder so that the ladder becomes the anchor point for that equipment, make sure that the make and model of ladder that you will be using has been verified as suitable by the equipment and ladder suppliers for that purpose;
- You should be competent in the use of the personal fall protection equipment in conjunction with a ladder. That includes any training that is necessary;
- You must follow the user instructions and training provided by the equipment supplier;
- Make sure any personal fall protection equipment meets the requirements of the relevant standards.
- Personal fall protection equipment must be inspected and maintained properly, and you must be competent to do that;

- All roofs should be considered as fragile unless a competent person has confirmed that they are not (HSE HSG33). Falling through a fragile roof is one of the main causes of accidents during roof work;
- Make sure that the roof can support the combined weight of you, your tools (including the roof ladder) and any materials. If you are not sure then you should not use a roof ladder;
- Consider the point loads generated by the bearers and ridge hook of the roof ladder. In some cases, these point loads may cause damage (including cracking and breakage) to some roofing materials like slates or tiles;
- Make sure the bearers on the underside of a roof ladder are resting securely on the surface of the roof. If the surface (e.g. the profile of the tiles) means that the bearers are not properly supported, use an alternative means of access;
- Make sure the ridge hook is properly located on the reverse slope of the roof before stepping onto the roof ladder;
- Don't use a roof ladder as a leaning ladder. They are not designed for that purpose.

24 Telescopic Ladders

Telescopic ladders are available as variations of leaning ladders, stepladders, combination ladders and multi hinge joint ladders. They can be reduced in size, making them more portable and easier to store, and can be extended to various lengths as required.

The general guidance in the rest of this document also applies to telescopic ladders, however there are some additional specific points that you need to consider when selecting or using one:

- Keep telescopic ladders clean and dry during storage, transportation and use. Do not use them in dirty or dusty environments because if dirt or dust gets into the mechanism it could jam. Clean them after use.
- Only lubricate the ladder if the user instructions specify that you can do this and always use the specified lubricant;
- Follow the opening and closing procedure specified in the user instructions;
- Be aware of the potential for trapping fingers between the sections when extending and closing the ladders and keep your hands and fingers away from in-between the rungs or treads;
- Before every use – in addition to the normal ladder checks – make sure telescopic ladders are operating correctly and that the mechanisms that secure each section are locked and working properly. Remember some of the important parts are inside where they cannot be seen. If you are in any doubt if it's working properly then do not use the ladder;
- Do not stand on any rung or tread in the last metre at the top of a telescopic ladder.



Follow the opening and closing procedure specified in the user instructions



CORRECT – the locking mechanisms for each section are locked and working properly

Telescopic ladders don't all work in the same way. As well as following this guidance, it's important you read and follow the user instructions provided by the manufacturer, for the make and model of telescopic ladder that you are using.



Do not stand on any rung or tread in the last metre at the top of a telescopic ladder



Ensure all locking mechanisms are locked



Keep your hands free of rung area when closing the ladder

Further reading

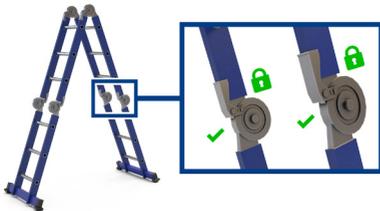
You'll find more detailed guidance on telescopic ladders in **Safety Guidance on Telescopic Ladders**, available from the Ladder Association website.

25 Multi-Hinge Joint Ladders

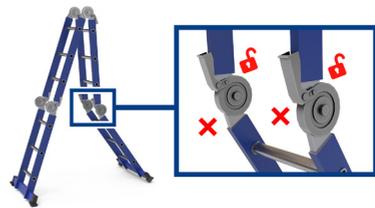
Multi-hinge joint ladders can be used in a variety of different configurations, including stepladder or leaning ladder.

The general guidance in the rest of this document applies to these types of ladder, however there are some additional specific requirements too. You should:

- Check to ensure that every hinge locking mechanism is properly engaged in accordance with the user instructions before every use. A failure of one hinge to lock may cause the ladder to fail;
- Remember that not all locking hinges work in the same way – check the user instructions for the make and model of ladder that you are using;
- Always recheck the locking mechanism if the setup of the ladder is changed and the hinge positions are altered;



CORRECT – locking mechanism engaged every time before use



INCORRECT – locking mechanism not engaged

- Fold and unfold the ladder exactly as it is specified in the user instructions;
- Keep multi-hinge joint ladders clean and dry during storage, transportation and use. Do not use them in dirty or dusty environments because if dirt or dust gets into the mechanism it could jam. Clean them after use;
- Only lubricate the ladder if the user instructions specify that you can do this. Always use the specified lubricant;
- Be aware of the potential for trapping fingers between the sections when opening and closing the ladders and keep your hands and fingers clear. The weight of the sections can cause them to fold quickly;
- Before every use – in addition to the normal ladder checks – make sure multi ladders are operating correctly and that the mechanisms that secure each section are rotating and locking properly. Remember some of the important parts are inside where they cannot be seen. If you are in any doubt if it's working properly then do not use the ladder.

Using multi-hinge joint ladders as a platform

Some makes and model of multi-hinge joint ladder are supplied with a separate platform which may be used in conjunction with the ladder.

If you are considering using this platform feature in the workplace, carry out a risk assessment which justifies its use taking into account other safer equipment such as platforms with side protection. If you're using the ladder as a platform, only use the platform supplied by the ladder manufacturer. Never attempt to make your own using ad hoc materials like scaffold boards or other pieces of wood or decking.

Configure the ladder with its hinges in the correct position for the platform mode, in accordance with the user instructions. Never use the ladder in an M-shaped or upside-down position or any other position other than the platform position specified in the user instructions.

Position and secure the platform on the ladder in accordance with the user instructions. Always position and set up the ladder and platform so that the platform is horizontal. You can check this with a spirit level. Do not use the platform if it is not horizontal.

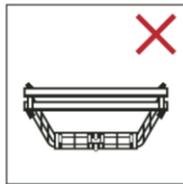
Only one person may stand on the platform. The maximum total load on a EN 131-4 multi-hinge joint ladder and platform is 150kg. Never exceed the maximum total load. Remember that includes your weight together with the weight of any tools, materials, or other equipment.

Ascend and descend from the platform using the method specified in the user instructions. Never jump down from the platform.

Never overreach or apply excessive horizontal loads when standing on the platform, such as pushing sideways when drilling. That may cause the ladder to overturn.



Secure the decking before use



Do not use ladder in an upside-down position



Check maximum load before use



Ensure the hinges are locked

At a glance

Detailed inspections are:

- The employer's responsibility;
- Carried out at fixed intervals;
- Done by a competent person;
- Recorded;
- Planned using a ladder register.

In the workplace, employers need to make sure that ladders are in a safe condition before use. To support this, they must conduct regular inspections. The aim is to establish if the ladder is safe for continued use or if maintenance or remedial work is needed. This is a requirement of the Work at Height Regulations and is **in addition** to pre-use checks, which were covered in section 14.

It's also a good idea to do a detailed inspection occasionally to decide if the ladders you have at home are still fit for use. How often you do that will depend on how often you use the ladder and its condition last time you inspected it. But the conditions of storage can have a big effect on the life of your ladder. If you don't use the ladder frequently and you don't store it in good conditions then next time you come to use it, it may have deteriorated to a point that it's no longer safe to use.

Who can do an inspection?

The person undertaking an inspection must be competent to do so. This means they know what types of defects or deterioration could be present, whether the defect or deterioration found is serious enough to prevent further use of the ladder (disposal or repair), or if increased inspections (interim inspections) are necessary.

The Ladder Association offers an inspection training course for those whose duties involve detailed ladder inspection. For further details, visit ladderassociation.org.uk

How often should they be done?**Scheduled inspections**

Detailed inspections must be carried out at fixed intervals. The more frequently your ladder is used, the more often you'll need to inspect it. Even ladders that get very little use need inspected to check they haven't deteriorated or been damaged during storage. Poor storage conditions will mean ladders require inspection at more frequent intervals.

As a guide, for ladders used and stored in good conditions:

Level of use	Inspection schedule (at a minimum)
Frequent (on a daily basis)	Every 3 months
Occasional (on a weekly basis)	Every 6 months
Infrequent (less than monthly)	Every 12 months

Ladders that are part of a scaffold system should be inspected every seven days as part of the scaffold inspection requirements.

Interim inspections

In between scheduled inspections, you may also need to do interim inspections if a risk assessment has identified significant risks that could result in deterioration in the condition of the ladder. For example, if it's being used in extreme conditions such as in a corrosive environment, or if it is likely to have incurred damage such as being struck by a vehicle, overloaded, blown over in high winds or dropped.

Ladder register

If you own a number of ladders, it's a good idea keep a register to help you organise and plan inspections and maintenance. This can be in whatever format you find works best.

Give each ladder a unique ID, which should be recorded in the register and attached to the ladder with a label. Labels should not weaken the ladder or hide defects.

You can also use the register to record details of training completed by users and the date of their next refresher training, along with any assessment of their ability to carry out inspections.

What does an inspection involve?

Detailed inspections are more in-depth visual and functional inspections than pre-use checks. For example, in a pre-use check you would check that rivets were not missing. In a detailed inspection you would check that rivets were not loose or missing.

The user instructions will include guidance on how to inspect the ladder, which you should follow. Some examples of what to look for include:

- Damaged or worn ladder feet;
- Twisted, bent or dented stiles;
- Cracked, worn, bent or loose rungs;
- Missing or damaged tie rods;
- Cracked or damaged welded joints;
- Loose rivets;
- Damaged stays.

In the workplace, ladders with visible defects must be marked as unfit for further use and immediately withdrawn from use. They should be destroyed or repaired. If a ladder cannot be found when it's due to be inspected, do a ladder stock check to establish that the company no longer has the ladder.

How do you record an inspection?

In the workplace, you must keep a record of inspections, including interim inspections, and make them available to a health and safety inspector if you're asked to do so. These records provide a snapshot of the state of the ladders over time.

What to include

Inspection reports must contain the following information, at a minimum:

- Identification marking of ladder;
- Description of ladder (e.g. 'single section leaning wooden ladder');

- Date of inspection;
- Who did the inspection;
- Any significant damage or wear (type and location) relevant for the next inspection;
- Whether the ladder was fit for use and if not, what action was taken (e.g. repaired or destroyed);
- If the ladder was fit for continued use and the next inspection date (month and year);
- If a ladder is destroyed or repaired as the result of a user check, this information should be entered into both the record and the register;
- The name and address of the person for whom the inspection was carried out;
- The location of the work equipment inspected;
- The description of the work equipment inspected;
- Details of work being undertaken and the work equipment used to perform the task;
- The date and time of the inspection;
- Details of any matter identified that could give rise to a risk to the health or safety of any person;
- Details of any action taken as a result of any matter identified above;
- Details of any further action considered necessary;
- The name and position of the person raising the report.

Format

The record can be whatever format you find most appropriate. Inspection records can be linked to the ladder register.

Storage

Store your records so they're accessible but protected from interfering or tampering. They can be kept electronically if it's a secure and printable format.

Visual indicator

Affix a label to your ladders to provide users with a useful visual indicator of its inspection status. Ladder Inspection Records are available from the Ladder Association's website.

Records of inspection from the Ladder Association website

Ladders on hire

Hire companies should carry out a pre-use check when a ladder is returned, before it's hired to anyone else, to establish if any repairs are necessary.

While it's on site, it's your responsibility to ensure that detailed and interim inspections are carried out.

Further guidance

- Pre-use checks and inspections of ladder stability devices and other accessories should be performed in accordance with the user instructions;
- There are specific requirements and regulations for the inspection and maintenance of personal fall protection equipment. Contact the supplier of the equipment for further guidance.

27 Transportation

At a glance

- Ladders can get damaged if not secured and supported during transportation;
- When securing ladders to roof racks, you're working at height.

When transporting your ladder in a vehicle, make sure it's firmly secured and properly supported to prevent it being damaged. Keep these points in mind:

- Ensure it is suitably fastened and secured;
- It should not overhang at the front or rear by more than 2m and it must have side and/or end markers (Source: Highway Code);
- Avoid placing other loads on the ladder as this can cause deformation/sagging;
- Pad racks on vehicles with soft material to reduce wear and road shocks;
- Do not allow a ladder to overhang more than 2m from last support point on roof rack;
- Be aware that overhang can cause obstructions to, for instance, boot/rear door opening;
- Evenly distribute ladder loads across both the length and breadth of the roof rack.

Proprietary accessories and even special restraint systems are available to help transport ladders safely.

Consider the risk of falling when securing ladders to roof/ladder racks (this is also working at height). Special vehicle ladder racks are available which allow the ladder to be put onto and taken down from the roof when standing at ground level, therefore avoiding the risk.

28 Handling

At a glance

- Plan ahead before moving a ladder;
- Take care not to damage the equipment, or harm yourself or others;
- Short ladders can be carried vertically;
- Longer ladders should be carried horizontally and need two people.

Take care when carrying a ladder to avoid damaging the equipment, or harming yourself or others. Start by assessing your planned route, the size and weight of your equipment, the manual handling implications and the practical challenges of moving in confined conditions.

A shorter ladder (generally 2.5m or less) can often be comfortably carried vertically, as long as you're aware of overhead obstructions.

Longer ladders (generally more than 2.5m) will normally be carried horizontally. Two or more people will be required to handle and manoeuvre it. Ensure that you are both on the same side and stay in step. Work out in advance any hand or voice signals to coordinate stopping or changing direction.

Use caution when carrying ladders through passageways, doorways or any place where your view is obstructed.

At a glance

- Ladders can get damaged if not stored properly;
- They can be stolen or used for criminal activity;
- There's a chance of children or other unauthorised people climbing them.

When not in use, store your ladder in accordance with the user instructions. In general, ensure the ladder is stored:

- Away from areas where its condition could deteriorate more rapidly (e.g. dampness, excessive heat or cold, or exposed to the elements). Choose a storage area that is covered and ventilated;
- Clear of the ground;
- On one edge, either in racks or hung from a stile with enough supports to prevent sagging (at intervals of no more than 2m);
- In a position which helps it to remain straight and horizontal (e.g. hung by the stiles on proper ladder brackets or laid on a flat clutter free surface). Never hang a ladder vertically from a rung;
- With nothing on top of it, which could cause deformation/sagging;
- Where it cannot be damaged by vehicles, heavy objects, or contaminants;
- Where it cannot cause a trip hazard or an obstruction;
- In a locked, secure location where it cannot easily be stolen or used for criminal purposes e.g. a break in;
- Where children won't be tempted to climb it.

There are additional requirements depending on the type of ladder you have:

- If the ladder is permanently positioned (e.g. on scaffolding), secure it against unauthorised climbing;
- Store ladders made of or using thermoplastic, thermosetting plastic and reinforced plastic materials (e.g. fibreglass or GRP) out of direct sunlight;
- Store wooden and steel ladders in a dry place and off the ground to prevent rot and corrosion.

At a glance

- Keep ladders clean;
- Maintain the ropes and pulleys, if applicable;
- Don't paint wooden ladders;
- Ladder repairs should be carried out by someone competent for the job;
- Get replacement parts from the ladder manufacturer or supplier.

Take care of your ladders by following the user instructions.

Cleaning

Keep your ladders clean to avoid defects being hidden behind paint, dirt, etc. It's particularly vital to keep the anti-slip feet clean so they maintain their grip with the ground.

Ropes/pulleys

Ensure ropes and pulleys are maintained in accordance with the user instructions.

Painting

Do not paint wooden ladders as this can hide defects. Wooden ladders should be coated with a transparent finish (e.g. varnish, shellac or a clear preservative). Do not coat them with opaque or vapour tight paints.

Repairs

Repairs and maintenance should only be carried out by someone who is competent to do so, meaning they have the necessary skills for the job. For example, they've been trained by the manufacturer.

Replacement parts

If you need replacement parts for your ladder, for example feet, contact the manufacturer or supplier.

At a glance

- The leading ladder training scheme is run by the Ladder Association;
- A variety of training courses are available;
- Pick the right course for your role and responsibilities;
- Helpful resources are available on the Ladder Association website.

Training scheme

As well as being the lead industry body and the people that National Standards Bodies, health and safety authorities, users, managers and safety professionals all turn to for expert advice, the Ladder Association also operates the leading ladder training scheme through a network of approved training centres.

These training centres must meet a demanding set of quality criteria. Their instructors, premises, facilities, course materials and equipment are all vetted. Moreover, centres are subject to ongoing audit to ensure they continue to meet consistently high standards.

Courses are intended to meet the requirements of the basic syllabus of the Advisory Committee for Work at Height Training (ACWAHT).

This Code of Practice serves as a supporting document for users, supervisors and managers who have completed a Ladder Association course.

Training courses

Ladder Association approved training centres provide a series of training course modules covering different aspects of ladder safety:

- Ladders & Stepladders for Users;
- Ladder & Stepladder Inspection;
- Ladders & Stepladders Combined Use & Inspection;
- Ladders & Stepladders for Managers;
- Stepladders & Stepstools for Users.

These courses are only available from Ladder Association approved training centres.

Further information

Visit ladderassociation.org.uk for:

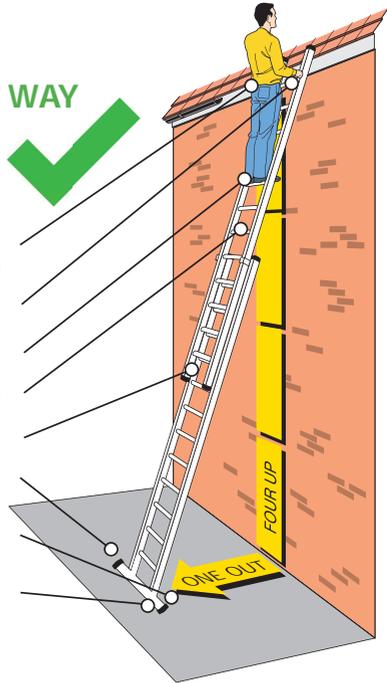
- Advice on the safe use of ladders;
- More information on training courses;
- A list of approved training centres;
- Links to our social media channels;
- Answers to frequently asked questions.
- Online shop where you can buy more copies of this Code of Practice and other safety-related items.

Work the Safe Way on Ladders

THE RIGHT WAY

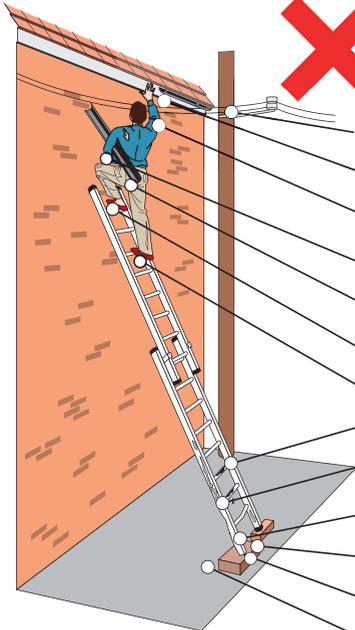


- Right height for the job - no overreaching
- Good grip
- Correct flat shoes
- Clean rungs
- Ladder in good condition
- Firm and level base
- Ladder at correct angle - 75 degrees
- Wider at the base



THE WRONG WAY

- Electrical hazard
- Overhead hazard
- Wrong height for the job - overreaching
- Not holding on - only 2 points of contact
- Overloaded with materials
- Standing beyond the last marked rungs
- Incorrect footwear
- Mud on rungs
- Damaged ladder
- Foot missing or damaged
- Unstable surface
- Ladder not wider at base
- Base too far from wall

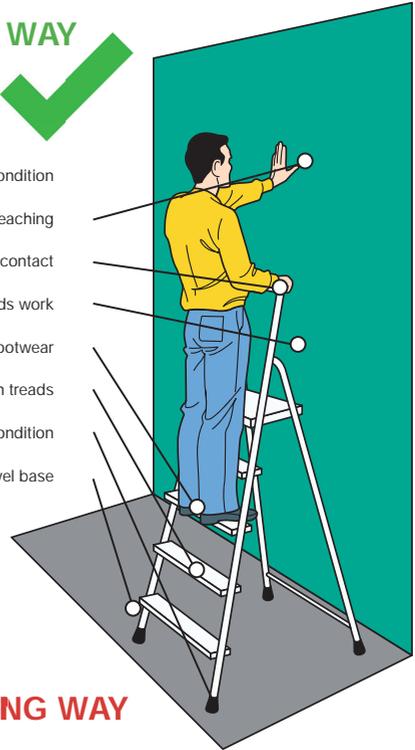


Work the Safe Way on Stepladders

THE RIGHT WAY



- Step in good condition
- Right height for the job - no overreaching
- Good grip - 3 points of contact
- Facing front towards work
- Correct footwear
- Clean treads
- Four feet in good condition
- Firm and level base



THE WRONG WAY

- Overhead hazard
- Wrong height step for the job - overreaching
- No grip on step - only 2 points of contact
- Standing on top handrail
- Incorrect footwear
- Loose tools
- Working side-on
- Slippery treads
- Uneven, soft ground - no flat board
- Damaged stiles and treads
- Missing feet





Advancing safety, best practice and competence when working at height

The Ladder Association is a member of the Access Industry Forum (AIF), the forum for the ten principal trade associations and federations involved in work at height.

Each organisation represents a different sector of the access industry and fosters and supports codes of good practice, minimum standards for equipment, training, education, information and best practice in the work at height sector.

For more information visit accessindustryforum.org.uk

Acknowledgments

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ladderassociation.org.uk/guidance

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