



Fire safety

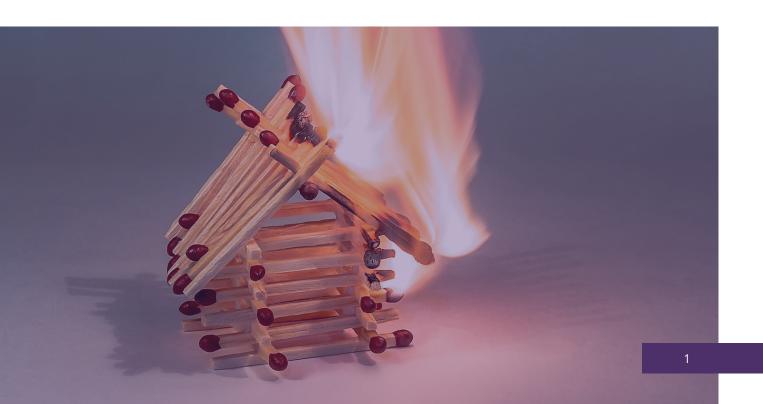
A clear, impartial guide

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Introduction

Although fatalities have gradually been decreasing, the UK still sees a significant number of fire-related injuries and deaths each year.

Most occur in single-, two- and three-storey buildings.

Many of these injuries and deaths could be avoided by following some simple safety procedures.

The Home Office's data for England shows that, in 1981/82, there were 937 fire-related fatalities in the UK. In 2020/21, this number was 249.

Despite gradually declining, this still represents 249 deaths too many. In England alone, the number of non-fatal casualties in 2020/21 caused by fires was 6,387. This guide aims to reduce this number by promoting good fire safety practice in the home.

About this guide

This guide offers basic advice about fire safety in the home. It has been written specifically with homeowners and residential tenants in mind.

Having a basic understanding of fire safety is very important for all of us, and in extreme circumstances can mean the difference between life and death in a fire situation.



Making a difference

Fire safety design and regulation is a complex area. There are many physical safety features in buildings that contribute to fire safety in ways that may not be immediately apparent, such as compartmentation, protected zones, fire doors, smoke seals, etc.

This guide does not cover these technical items, which are mandated by regulation and are often out of sight. Instead, it aims to draw attention to the things that you can make a difference to, which are equally important in reducing fire risk.



This guide can assist you in making your home as safe as possible by understanding the risks and looking at ways to minimise and manage fire safety measures.

This responsibility mainly lies with the occupier, but sometimes the landlord has responsibilities to ensure that certain elements have been provided, tested and are in good working order, e.g. electrical and heating systems.

To make this clear, the content of the guide is split between:

- owner-occupier accommodation and
- rented/shared accommodation.

This guide is aimed at homeowners and occupiers only, and only covers:

- houses
- apartments
- flats and
- maisonettes.

It is **not** suitable for use in commercial properties, and also does **not** apply to other multi-occupancy accommodation such as hotels, student accommodation or similar premises, which are more complex and have their own regulations.

Common causes of fire



Cigarettes

Smoking is still a significant cause of house fires and, on average, somebody in the UK dies every six days as a result.

If you or someone in your household smokes, be aware of the following safety points.

- Make sure cigarettes are stubbed out properly carelessly discarded smoking materials are still one of the biggest causes of domestic fires.
- Do not leave a lit cigarette or pipe lying around: they can easily start a fire or smoulder for some time before creating a fire later.
- Never smoke in bed.
- Use a proper ashtray which is in a stable, secure position and made of non-combustible material.
- Take care when smoking while tired as you might easily fall asleep and start a fire.



Vapes/e-cigarettes

Figures published by the BBC show that vapes/e-cigarettes are likely to have caused over 100 fires in just two years.

If you use a vape/e-cigarette:

- only use the charger supplied with your product
- don't leave the vape/e-cigarette unattended while charging
- once fully charged, remove the battery from the charger
- clean the battery charger contact once a week and
- never use a damaged vape/e-cigarette.



Candles

Candles can look attractive in the home, creating pleasant lighting or nice aromas. But candles also cause two house fires a day in the UK.

The following precautions should be followed.

- Ensure that candles are on a stable base, and placed on a saucer or plate.
- Never place candles directly on a surface like a table.
- Ideally, place candles in a glass jar or vase.
- **Do not** place candles:
 - next to furniture
 - in the bedroom or
 - near open windows where draughts can blow curtains on to the flame.
- Never place candles near Christmas trees, which are highly combustible.
- Never place lit candles where things can fall on to them and start a fire.
- Make sure you extinguish candles properly after use and always extinguish them before going to bed.
- Do not leave children alone with candles.
- Keep pets away from lit candles.
- Consider replacing candles with small, battery-powered replicas.



Plug-in air fresheners

Plug-in air fresheners can overheat.

The following precautions should be followed.

- Change any scent inserts when finished.
- Unplug them overnight.
- Keep them away from flammable materials, e.g. clothes.



Electrical circuit overload

Around half the fires in England are caused by electricity.

Check the following on your electrical installations.

- Always confirm that the correct fuse or circuit-breaker is fitted to avoid overheating.
- Ensure electrical appliances have a British or European safety mark when purchased.
- Try to use no more than one plug in each socket, as overloading multiway and extension cables can cause overheating and start a fire. Washing machines and other white goods should have their own socket, due to their high electrical load.
- Electrical extension reels should be fully unwound if used.
- Always check for dangerous and loose wiring, scorch marks and hot plugs and sockets, as well as fuses that blow and circuit-breakers that trip for no obvious reason.
- Do not try to carry out electrical works that you are not trained for – always contact a competent electrician if you are unsure.
- Have your electrical system inspected by a competent and qualified electrician every five years.



Electric blankets

Always follow the manufacturer's instructions and test blankets every three years.

Also take the following precautions.

- Store any electric blankets flat, rolled up or loosely folded, to avoid damaging the internal wiring.
- Unplug blankets before entering the bed unless there is a thermostatic control for safe all-night usage.
- Check blankets regularly for wear and tear, and avoid buying them second-hand.

- Avoid getting the blanket wet. If it does get wet, ensure that it is completely dry before re-use.
- Never use an electric blanket and hot water bottle together.
- The local fire and rescue service or Age UK may be able to test blankets for you at no cost.

Electrical appliances



Always unplug appliances when not in use and when you go to bed (especially TVs, tumble dryers, dishwashers and washing machines).

- Mobile phone and tablet chargers are a common cause of fires.
 - Place them on a non-combustible surface when charging.
 - Always turn off a charger when a device is not charging, as they can cause fires if left on with no device connected. Always turn them off when you go to bed.
- Make sure portable heaters are positioned to prevent them falling over, and if possible turn them off overnight.
- Keep portable heaters clear of curtains and furniture, and never use them for drying clothes.
- Clean the filters of tumble dryers regularly to avoid a buildup of lint, which is combustible and can cause fires.
- If an appliance smells hot or is smoking, turn it off immediately.
- Regularly check appliance cables and leads, and replace them if required.
- Electrical appliances should not be left unattended on beds and soft furnishings. For example, use laptops on a hard, flat surface to avoid overheating.
- Electrical products (including e-cigarettes) can be recalled by manufacturers due to safety reasons; the average success rate for a product recall is only 10–20%.

Furniture



In the past, furniture has been filled or covered with extremely combustible materials that contribute to dangerous fires and give off highly toxic smoke.

Even modern synthetic materials will give off dangerous toxic smoke that can kill easily very quickly.

There are now UK regulations in place to reduce this risk, requiring manufacturers to meet minimum safety standards. Make sure you purchase furniture that has a permanent label confirming it complies with these regulations. But remember this will not prevent fires.



Gas

Gas used for heating and cooking is obviously highly combustible, and gas leaks can be very dangerous.

- If you smell gas, contact your supplier immediately.
- Open windows to allow the gas to escape.
- Do not operate any electrical switches or smoke a cigarette.
- Leave the property and wait for the supplier to confirm that it is safe.
- It is recommended that gas appliances are checked annually by a Gas Safe-registered contractor.

Escape routes

One of the most fundamental fire precautions you can take is to plan and memorise your escape route.

This applies whether you are in your own home or visiting another property such as a friend's house or a hotel.

Doing this significantly increases the chances of you and your family escaping a fire safely.



Escape time has significantly reduced over the past few decades due to toxic smoke in a fire.

There must also be a suitable balance between security and fire safety – all occupants must be able to open doors or windows as appropriate from inside and escape if there is a fire.

Some key pointers for escaping fire:

- Familiarise yourself with any specific fire escape routes designated for the building.
- Be aware of and plan any alternative escape routes.
- Plan an escape route, and ensure all of the household are aware of it.
- Make sure the exit route is kept clear, including the exit itself. Any blockages on communal escape routes should be cleared and/or immediately notified to the building manager for action.



- Locked external doors should have a thumbturn or the key left inside the lock or nearby so they can be opened easily in an emergency. Window keys should also be easily accessible nearby, and all the household and any visitors should know their whereabouts.
- The normal entry into the property is usually the best exit in the event of a fire as it is the most familiar.
- A second exit route should be planned in case the first one is blocked.
- If there is a fire, do not use lifts unless a dedicated fire evacuation lift has been installed (such lifts are rare; if in doubt, check with the building manager or manufacturer).
- If living in a flat or maisonette, close the front door on evacuation, if you can, to stop the fire spreading to communal areas.
- Rehearse the escape plan with your household, including any alternative routes.
- Do not forget to review your escape plan if any alterations are made to the building.
- Close internal doors at night if possible, as this will help to stop a fire spreading. 'Close before you doze' is a good way of remembering.

Important note on evacuation

Some tall multi-occupancy residential buildings may have a 'stay put' policy, meaning that, if there is a fire in a neighbouring unit, it may be safer to remain in your flat or maisonette, as the fire is expected to be contained by fire-resisting walls and floors. This policy should be checked with your building manager, or the fire brigade directly if there is no building manager.

A 'stay put' policy may be changed by the fire brigade during a fire in the rare event that the fire spreads beyond the dwelling of origin.

What to do in the event of a fire in your home



A fire can develop quickly and can create highly toxic fumes that may only require three or four breaths to render you unconscious. The time to escape could be as low as a few minutes.

It's therefore vital you act quickly and get out of your home as quickly and as safely as possible. Know and follow these steps if there is a fire in your home or if your fire alarms go off.

- Try not to panic. Alert everyone in your home quickly by shouting 'FIRE'.
- Close the door to the room where the fire is if possible, but do not endanger yourself.
- Test closed doors by placing your hand against it. Do not open the door if it feels warm, as there may be fire on the other side.
- **Get everyone out of your home as quickly as possible**. You should have planned and rehearsed an escape route. Do not stop to pick up possessions or look for pets.
- **Keep low as you escape**: the air will be clearer.
- Do not attempt to tackle the fire yourself unless you have a fire blanket/fire extinguisher immediately to hand and know how to use them properly, the fire is small enough, and your escape route is clear. Call 999 first. Fires and thick black toxic smoke can escalate in less than two minutes, preventing escape. If in doubt, get out, stay out, and call 999.
- Ask a neighbour to call 999 if you cannot do it yourself.
- If you can't get out of the property without help, stay in a room with the door shut. Ideally, the room will have a window, a phone (or mobile), and be at the front of the property (or a suitable place for the fire brigade to assist). Place bedding or soft materials at the bottom of the door to help block any smoke. Open the window and shout 'Help! Fire!'. Keep a whistle handy if it is hard for you to shout. If you have a phone, call 999.



Owner-occupied property

Fire detection

Smoke alarms

New houses are legally required to have smoke alarms fitted in important locations. This has significantly contributed to the reduction of deaths in domestic fires.

However, there has recently been an increase in the number of deaths where fire detection is provided but is not working due to flat or removed batteries.

It is also possible that older properties either won't have any alarms fitted, or they may have fewer smoke alarms than current regulations require for new buildings.

Smoke alarms are a low-cost means of fire detection.

RICS strongly recommends that interlinked working detectors are fitted in all homes.

How many alarms you need depends on the size and layout of the house, but they should be positioned as follows.

- There should be at least one smoke alarm on each floor, in the communal hallway.
- Ideally, there should also be a smoke alarm in every bedroom, and one in the living room.
- Do not fit smoke alarms in the kitchen or bathroom, as cooking or steam can set them off accidently. A heat alarm should be fitted in the kitchen instead (see below).



- Most fires happen at night, so locate alarms where they will wake you up, such as close to bedrooms – within 3 metres of every bedroom door is best.
- Fit interlinked alarms, so a fire in one room will sound an alarm in all other rooms.
- Test alarms regularly every week is good practice.
- Never disconnect or remove batteries if the alarm keeps bleeping when not being tested. Either replace the battery or replace the smoke alarm.
- Replace alarms every ten years or if they stop working properly.
- Where multiple detectors are provided, they should ideally be linked. These can be linked physically via electrical cabling, or wirelessly.

Heat alarms

- Fit heat alarms in kitchens and other rooms where day-to-day activities such as cooking may trigger smoke alarms, rather than an actual fire.
- Test heat alarms and replace batteries in the same way as smoke alarms (see above).

Carbon monoxide alarms

Carbon monoxide alarms detect this harmful gas, which can cause poisoning and death. Fit these alarms in homes where there are appliances that can emit carbon monoxide, such as gas boilers or fires, coal fires and solid-fuel burners.

- Fit such alarms in the room where the appliance is.
- Locate them close to the appliance either:
 - on the ceiling, at least 300mm from any wall or
 - if an alarm has to be on a wall, it should be as high up as possible (above any doors and windows) but not within 150mm of the ceiling, and between 1 and 3 metres horizontally from the appliance.
- Test and replace the batteries in the same way as smoke alarms.



Putting out fires

- Leave fighting fires to the fire brigade: a fire can quickly get out of control and put you in danger if you attempt to tackle it.
- However, if you have a fire extinguisher or fire blanket that you can use to put out a small fire that's located in one place, you must know how to use these safely.



Remember, if in doubt, there is no doubt. Get out of the home, following the steps on page 11.

Fire extinguishers

All new fire extinguishers should:

- meet current British Safety Standards (BS EN3) and
- be kept somewhere that's in easy reach in an emergency.

The best place to keep an extinguisher is the kitchen, as this is the starting point of most fires in the home.

Keep familiar with how the extinguisher works by reading the instructions regularly. Make sure your extinguishers are serviced once a year, and replace any extinguisher that has been used.

There are various types of extinguisher available:

- Water: can be used on materials including wood, paper or cloth. Do not use water on an electrical fire, liquids or grease, or on oil or fat pan fires.
- Dry powder: can be used on most types of fires; however, they are no longer recommended for use indoors.
- Foam: these are safe for general use, except on oil, fat pan fires or electrical fires.
- Carbon dioxide (CO₂): for electrical fires and fires with flammable liquids, except oil or fat pan fires.
- Wet chemical: ideal for fires involving cooking oils and fats.



In domestic properties, a fire blanket and small wet chemical extinguisher in the kitchen would be considered satisfactory.

Always call 999 first before you make any attempt to stop a fire with an extinguisher. If using a fire extinguisher, remember the following.

- Do not put yourself in danger.
- Make sure you are positioned between a safe exit and the fire so you can escape if the fire escalates.
- Make sure the fire is contained before trying to put it out yourself.
- Make sure you use the right type of extinguisher for the fire.

Fire blankets

Fire blankets are made from fire-resistant fabric and are used to put out fires in kitchens, for example chip-pan fires. They can also be used to wrap a person whose clothes are on fire.

- Fire blankets are best located in the kitchen, next to the cooker.
- If you have a fire blanket, make sure you understand how to use it and follow the manufacturer's instructions.



Accessibility and specific needs

Those who may need special assistance during a fire include vulnerable people, disabled people, young children, elderly people or those with a temporary condition that might hinder their escape (e.g. a broken leg). The reason they need assistance could be, for example, if they are unable to hear the fire alarm or cannot escape quickly enough.



Special arrangements can be made through creating a personal emergency evacuation plan (PEEP). Your local fire brigade can provide expert advice and help plan a PEEP bespoke to your evacuation needs.

Mobility difficulties

If you have mobility difficulties, there are several helpful fire safety measures.

- Use remote-controlled or easy-access alarms, which can be tested from the wall rather than the ceiling. The <u>Disabled Living Foundation</u> can provide more information on these types of products.
- If you find it difficult to test your own alarms, ask somebody to do it for you.
- If you have sight, hearing or mobility issues or you use oxygen, register with the local fire and rescue service to ensure they are aware of your circumstances in the event of an emergency.
- If you have difficulty moving around, consider fitting an intercom, which will let you alert someone who can help in the event of an emergency.
- Make sure you have easy access to mobility aids at night, such as walking sticks, in case you need these for evacuation.

Hearing difficulties

If you have difficulty hearing a fire alarm, there are several helpful fire safety measures.

- Use a smoke alarm with a strobe light and vibration pads, and fit this in all bedrooms as well as the hallway or landing.
- You can also link smoke alarms around your home so that they go off together to make a louder alarm and alert other people in your household.
- In the event of a fire, evacuate the property and call 999, or ask a neighbour to do so if you have difficulty.
- If you have specialist equipment such as a textphone or minicom, contact emergency services on the emergency number.

Visual impairments

If you have difficulty seeing fire safety measures, there are several helpful alternatives.

- If you have trouble identifying alarms that need testing, put a coloured sticker on smoke alarms. The local fire and rescue service can also provide a coloured cover for some smoke and heat alarms.
- Consider fitting coloured tactile indicators such as 'bump-ons' also known as 'plastic blisters' on domestic appliances that could start a fire, to emphasise controls, switches, etc. to make sure you can switch them off properly.
- Unplug electrical leads and check regularly by touch for fraying cables when the appliance is unplugged.
- If you are using an electric appliance and smell burning, turn it off immediately and unplug it.
- Fit tactile indicators along your planned escape route to find exits more easily. Rehearse your escape route if possible.

Oxygen

If you store oxygen in the house, there are some additional points to consider.

- Do not store oxygen in direct sunlight. Keep it in an area that is dry, well-ventilated and away from heat sources.
- Do not use oxygen near a naked flame, including gas and electric cookers: three metres is a minimum safe distance.
- Never smoke or use electrical equipment such as e-cigarettes or hairdryers while using oxygen.

Rented or shared accommodation

Landlord obligations

It is important to note that, to help keep a home safe from fire, a landlord must meet certain obligations under law.

The local authority can issue a remedial action notice and impose a fine of up to £5,000 if they fail to meet these obligations.

Smoke alarm compliance

- The landlord must ensure that a smoke alarm is fitted on each level of the property.
- The landlord must test smoke alarms on the first day of new tenancies; subsequent testing is the responsibility of the tenants.
- RICS recommends that tenants test alarms on a weekly basis.

Carbon monoxide alarms

- The landlord must provide a carbon monoxide alarm in rooms where any solid fuel appliance is installed (e.g. a coal fire or log-burning stove) or where gas appliances are provided.
- The landlord must test carbon monoxide alarms on the first day of new tenancies in the same way as smoke alarms. Tenants are responsible for subsequent testing.
- RICS also recommends that alarms are tested by tenants once a week.



Gas appliance checks

• The landlord must arrange for gas appliances to be serviced and checked annually by Gas Safe-registered professionals.

Electrical compliance

- Electrical appliances provided by the landlord must carry the British Standard sign.
- RICS recommends the landlord arranges for electrical installations to be visually inspected on a regular basis – at least every five years, as well as every time the property is prepared for letting. RICS recommends testing fixed wiring every five years as well.
- For appliances in let properties, RICS recommends portable appliance testing (PAT) by a competent electrician once a year.

Furniture compliance

• Any furnishings provided by the landlord must be fire-retardant and meet current safety regulations.

Safety certificates

• The landlord must make safety certificates available to tenants, showing the dates when the gas and electrical appliances were last checked.



How an RICS member can help

As the world's largest professional body for chartered surveyors, RICS offers clear, impartial, expert advice on the issues raised in this guide.

RICS members can help property owners in a variety of ways, so whether you want expert advice and a professional assessment of your issue, an opinion on costs, representation, or a professional to manage a project for you, visit Find a Surveyor to find an RICS member in your area.

Using the services of RICS members offers confidence because:

- they give you clear, impartial and expert advice
- they are regulated and have strict rules of conduct to protect you, as well as holding appropriate professional indemnity insurance
- they have to update their skills and knowledge throughout their careers, so you can rely on their expertise and
- you are further protected by RICS' complaints service and access to independent redress.

Surveying firms that are regulated by RICS are easy to spot as they use 'Regulated by RICS' on their stationery and promotional material.

Useful links

Here are some useful website addresses for related fire safety advice.

General fire safety information

Fire safety in the home

- Fire kills
- Fire safety for home owners

Accessibility and special needs

Disabled Living Foundation

Electrical appliances

- Living Made Easy
- Product recalls
- Age UK

Rented or shared accommodation

- Renting out your property (England and Wales)
- Housing health and safety rating system (HHSRS): guidance for landlords and property-related professionals

Free RICS guides

RICS has a range of free guides available for the following property issues:

Development issues

Compulsory purchase Home extensions

Home hazards

Fire safety
Dilapidations
Flooding
Subsidence

Neighbour issues

Boundary disputes Party walls Right to light

Residential

Buying a home
Buying and selling art and antiques at auction
Home surveys
Letting a property
Property auctions
Renting a property
Selling a home

Visit our consumer guides website or RICS' public website.

Further information

We hope this guide is useful to you. If you'd like to know more about fire safety or how RICS can help, please contact us.

Visit our website

Visit the Fire safety hub for more information on fire safety.

Consumer helplines

Contact one of our regulated firms for a 30-minute initial consultation.

Find a Surveyor

Contact us if you want to find independent, impartial advice from a qualified professional with good local knowledge.

Surveying firms that are regulated by RICS are easy to spot as they use 'Regulated by RICS' on their stationery and promotional material.

Delivering confidence

We are RICS. Everything we do is designed to effect positive change in the built and natural environments. Through our respected global standards, leading professional progression and our trusted data and insight, we promote and enforce the highest professional standards in the development and management of land, real estate, construction and infrastructure. Our work with others provides a foundation for confident markets, pioneers better places to live and work and is a force for positive social impact.

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