



A clear, impartial guide to
Fire safety



rics.org/firesafety

Contents

| | |
|---|----|
| Introduction | 3 |
| About this guide..... | 4 |
| Common causes of fires | 5 |
| Forward planning and fire escape basics | 8 |
| Owner-occupied property | 10 |
| Rented or shared accommodation..... | 15 |
| Free RICS guides..... | 16 |
| Useful links | 17 |
| Further information..... | 18 |
| Find a Surveyor | 18 |

This consumer guide was produced by the RICS Building Surveying professional group in conjunction with members of the RICS Fire Safety Working Group 2019. RICS would like to express its thanks to the following who contributed to its development:

Gary Strong, BSc (Hons) FRICS FCI Arb C.BuildE FCABE FCILA FUEDI-ELAE

Alan Cripps, FRICS C.Build.E FCABE FCILA FUEDI-ELAE MCIAT

Craig Ross, BSc (Hons) MRICS

Andrew Thomas, MBA, MRICS (Fylde Borough Council)

David Ware (Fire Risk Consultancy Limited)

Ray Quinn, BEng (Hons) MSc CEng MIEI MIFireE (BB7)

Simon Sandland-Taylor, MBA, FRICS, BSc, MIFireE, DMS (The Sandland Taylor Consultancy)

Copyright RICS 2019

Introduction



Although the number of fire-related fatalities in the UK has been gradually decreasing over the past 40 years there are still a significant number of injuries and deaths each year from fires, with most occurring 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 fire statistics data tables show that in 1981/82 there were a total of 937 fire-related fatalities in the UK, while in 2017/18 this number was 395. Despite the gradual decline over this time, this still represents 395 deaths too many. In England alone, the number of fatalities in 2017/18 caused by accidental dwelling fires was 243. This guide aims to reduce this number by promoting good practice in fire safety in the home.

About this guide

This guide offers basic advice about fire safety in the home, and 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. RICS have therefore commissioned this guide in order to spread awareness among homeowners and tenants and communicate basic advice in a single volume that is written in a non-technical and easy to follow format. It has been written by RICS Chartered Building Surveyors and a multi-discipline fire safety advisory group.

Making a difference

Fire safety design and regulation is a complex area, and there are numerous physical safety features in buildings that contribute to fire safety in ways that may not be immediately apparent, e.g. compartmentation, protected zones, fire doors, smoke seals and so on. The purpose of this guide is not to cover these technical items that are mandated by regulation and often out of sight, but to draw attention to the things that you can make a difference to, which are equally important in reducing fire risk.

Therefore, 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, however in some cases 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. The content of the guide is split between owner-occupier and rented/shared accommodation to make this clear.

As this document aims to provide general information on useful domestic fire safety measures, you should be aware it does **not** provide detailed technical guidance on all fire safety procedures, and you should seek further information where necessary. For example, smoke detectors should be installed according to the manufacturers' instructions, and if fitting a fire blanket you should also obtain guidance on how to use it properly.

This guide is aimed at homeowners and occupiers only and covers only 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. It is also not intended for use by surveyors or other professionals.

Common causes of fires

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, you should be aware of the following safety points.

- Ensure 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, as they can easily start a fire or smoulder for some time before creating a fire later.
- Never smoke in bed.
- Use a proper ashtray that 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.

E-cigarettes/vaping

E-cigarettes are relatively new, but recent figures published by the BBC show that these are likely to have caused over 100 fires in just two years. If you use an e-cigarette, follow these safety tips:

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

Candles

Candles can look attractive in the home, creating pleasant lighting or nice aromas. However, they are also the cause of two house fires a day in the UK, and these are precautions that should be followed.

- Ensure that candles are on a stable base, and placed on a saucer or plate – never directly on a surface like a table. They should not be placed next to furniture, in the bedroom, or near open windows where draughts can blow curtains on to the flame.
- Make sure you extinguish candles properly after use.
- Children should not be left alone with candles.
- Keep pets away from lit candles.
- Consider replacing candles with small, battery-powered replicas.

Plug-in air fresheners

These can overheat, so change any scent inserts when finished, unplug overnight and care should be taken to keep them away from flammable materials, e.g. clothes.



Electrical circuit overload

Around half the fires in England are caused by electricity, so you should 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

- You should store any electric blankets flat, rolled up or loosely folded when they are not in use to avoid damaging the internal wiring.
- You must 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.
- Always follow the manufacturers' printed instructions.

- 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.
- Test blankets every three years. The local fire and rescue service or Age UK may be able to do this for you at no cost.

Electrical appliances

- Always unplug appliances when not in use, particularly tumble dryers and washing machines, or when you go to bed.
- Chargers can cause fires if left on with no device connected. Always turn off your charger when a device is not charging.
- Make sure portable heaters are positioned to prevent them falling over, and if possible turn them off overnight.
- Dryers should have the filters cleaned regularly to avoid a build up of lint, which is combustible and can cause fires.
- Keep portable heaters clear of curtains and furniture, and never use them for drying clothes.





- Regularly check appliance cables and leads and replace them if required.
- Electrical appliances should not be left unattended on beds and soft furnishings. Laptops for example should be used on a hard, flat surface to avoid overheating.
- Electrical products (including e-cigarettes) can be recalled by manufacturers due to safety reasons and the average success rate for a product recall is only 10-20%. Further guidance can be found in the 'Useful Links' section [page 17].

Furniture

In the past, furniture has been filled or covered with materials that are extremely combustible, contributing to dangerous fires and giving off highly toxic smoke. There are now UK regulations in place to reduce this risk, requiring manufacturers to meet

minimum safety standards. Make sure when you purchase furniture that it has a permanent label confirming it complies with these regulations.

Gas

Gas used for heating and cooking in the home 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.

Forward planning and fire escape basics



Escape routes

One of the most fundamental fire precautions you can take is to plan and memorise your escape route, whether you are in your own home, or visiting another property such as a friend's house or a hotel. Doing so will significantly increase the chances of you and your family escaping a fire safely. 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 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 the key

left inside the lock or nearby so they can be opened easily in an emergency. Window keys should also be easily accessible, 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 fire as it is 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. Note that such lifts are rare, and if in doubt you should 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.

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 create highly toxic fumes that may only require three or four breaths to render you unconscious. It's therefore vital you act quickly and get out of the 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 the house quickly by shouting 'FIRE'.
- Do not endanger yourself, but if possible close the door to the room where the fire is.
- 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 the house as quickly as possible. You should have planned and rehearsed an escape route, as above. Do not stop to pick up possessions or look for pets.
- As you escape, keep low where the air will be clearer and to avoid smoke as best possible.

- Do not attempt to tackle fires yourself unless you have a fire blanket or fire extinguisher immediately to hand, know how to use them properly, and the fire is small enough and your escape route is clear. Call 999 first. Fires can escalate in less than two minutes. If in doubt, get out, stay out and call 999.
- If you cannot call 999 yourself, ask a neighbour if they can.
- If you cannot get out of the property without help, stay in a room with the door shut. Ideally this room should have access to a window and a phone (or mobile), and be at the front of the property or in 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 required by law to have smoke alarms fitted in important locations. The provision of such alarms in residential premises has significantly contributed to the reduction in the number of deaths in domestic fires. However, recent years have seen an increase in the number of deaths where fire detection is provided, but is not working due to batteries running flat or having been removed. 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. However, smoke alarms are a low-cost means of fire detection, and RICS strongly recommends that working detectors are fitted in all homes.

The number of alarms you need will depend 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 level, in the communal hallway.
- Ideally, there should **also** be a smoke alarm fitted in every bedroom, **and** one in the living room.

- Do not fit smoke alarms in the kitchen or bathroom, where cooking or steam can set them off accidentally. A heat alarm should be fitted in the kitchen instead (see below).
- Most fires happen at night, so locate alarms in positions that will wake you up, such as close to bedrooms – within 3 metres of every bedroom door is best.
- Test alarms regularly – every week is good practice.
- Never disconnect or remove batteries if the alarm keeps beeping 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

- Heat alarms should be fitted in kitchens and other rooms where day-to-day activities such as cooking may trigger smoke alarms rather than an actual fire.
- You should test heat alarms in the same way as smoke alarms (see above), and replace the battery in the same circumstances.

Carbon monoxide alarms

Carbon monoxide alarms are used to detect this harmful gas, which can cause poisoning. Alarms are usually fitted 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 installed.
- Locate them close to the appliance – either on the ceiling, at least 300mm from any wall, or, if the alarm is to be located on a wall, as high up as possible (above any doors and windows) but not within 150mm of the ceiling; and between 1 metre and 3 metres horizontally from the appliance.
- You should test these in the same way as smoke alarms [see page 10], and replace the battery in the same circumstances.

Putting out fires

Fighting fires is best left to the fire brigade as a fire can quickly get out of control and place 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 before use.

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

Fire extinguishers

All new fire extinguishers should meet current British Safety Standards [BS EN3] and should 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. You should 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, on liquids or grease, or on oil or fat pan fires.

Dry powder: These 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.

Before you make any attempt to stop a fire with an extinguisher, always call 999 first. If using a fire extinguisher:

- do not put yourself in danger, and 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 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 are fitting a fire blanket, you should understand how to use it and follow the manufacturers instructions.



Accessibility and specific needs

Those who may need special assistance during a fire include disabled people, young children, the elderly or those with a temporary condition which 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 be contacted to 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.

- You can obtain remote-controlled or easy-access alarms, which can be tested from the wall rather than the ceiling. The Disabled Living Foundation can provide more information on these types of products – see ‘Useful links’ [page 17].
- If you find it difficult to test your own alarms, ask somebody whether they can 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 that it is 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 might have difficulty hearing a fire alarm, there are several fire safety measures that may be helpful.

- You can obtain 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. At the time of writing, the number for those with hearing or speech difficulties is 18000.

Visual impairments

If you might 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. You should 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. You should 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: 3m is a minimum safe distance.
- Never smoke or use electrical equipment such as e-cigarettes or hairdryers while using oxygen.

Rented or shared accommodation

It is important to note that to help keep a home safe from fire, a landlord must meet certain obligations under law, and 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, and 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, for example in 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, and 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 – [hse.gov.uk/gas/domestic/faqlandlord.htm](https://www.hse.gov.uk/gas/domestic/faqlandlord.htm)

Electrical compliance

- Electrical appliances provided by the landlord must carry the British Standard sign.
- The landlord must arrange for electrical installations to be inspected on a regular basis – at least every five years, as well as every time the property is prepared for letting. They must test 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.

Free RICS guides

RICS has a range of free guides available for the property issues listed here.

Development issues

Compulsory purchase
Home extensions

Home hazards

Dilapidations
Flooding
Japanese knotweed
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

Useful links

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

General fire safety information

Fire safety in the home
firekills.campaign.gov.uk

Accessibility and special needs

The Disabled Living Foundation
www.dlf.org.uk

Electrical appliances

Product recalls
www.electricalsafetyfirst.org.uk/product-recalls

Age UK
www.ageuk.org.uk

Rented or Shared Accommodation

Renting out your property (England and Wales)
www.gov.uk/renting-out-a-property

Housing health and safety rating system (HHSRS): guidance for landlords and property-related professionals
www.gov.uk/government/publications/housing-health-and-safety-rating-system-guidance-for-landlords-and-property-related-professionals

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

[rics.org/consumerguides](https://www.rics.org/consumerguides)

alternatively email

contactrics@rics.org or call the RICS Contact Centre **02476 868 555**

Consumer advice

The Chartered Surveyors' Voluntary Service

[rics.org/uk/about-rics/responsible-business/welfare-and-corporate-responsibilities/chartered-surveyors-voluntary-service](https://www.rics.org/uk/about-rics/responsible-business/welfare-and-corporate-responsibilities/chartered-surveyors-voluntary-service)

Find a Surveyor

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

Look out for firms that are 'Regulated by RICS'. Estate agents and surveying firms that are regulated by RICS are easy to spot as they use 'Regulated by RICS' on their stationery and promotional material.

To find an RICS firm in your area visit

www.ricsfirms.com

alternatively email

contactrics@rics.org or call the RICS Contact Centre **02476 868 555**



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.

Americas

Latin America

ricsamericalatina@rics.org

North America

ricsamericas@rics.org

Asia Pacific

Australasia

australasia@rics.org

Greater China (Hong Kong)

ricshk@rics.org

Greater China (Shanghai)

ricschina@rics.org

Japan

ricsjapan@rics.org

South Asia

ricsindia@rics.org

Southeast Asia

sea@rics.org

EMEA

Africa

ricsafrica@rics.org

Europe

ricseurope@rics.org

Ireland

ricsireland@rics.org

Middle East

ricsmiddleeast@rics.org

United Kingdom RICS HQ

contactrics@rics.org