

**FireAngel®**

Working in partnership with:



**FireAngel®**

## **CARBON MONOXIDE POISONING**

A home safety handout

## WHAT IS

## CARBON MONOXIDE POISONING?



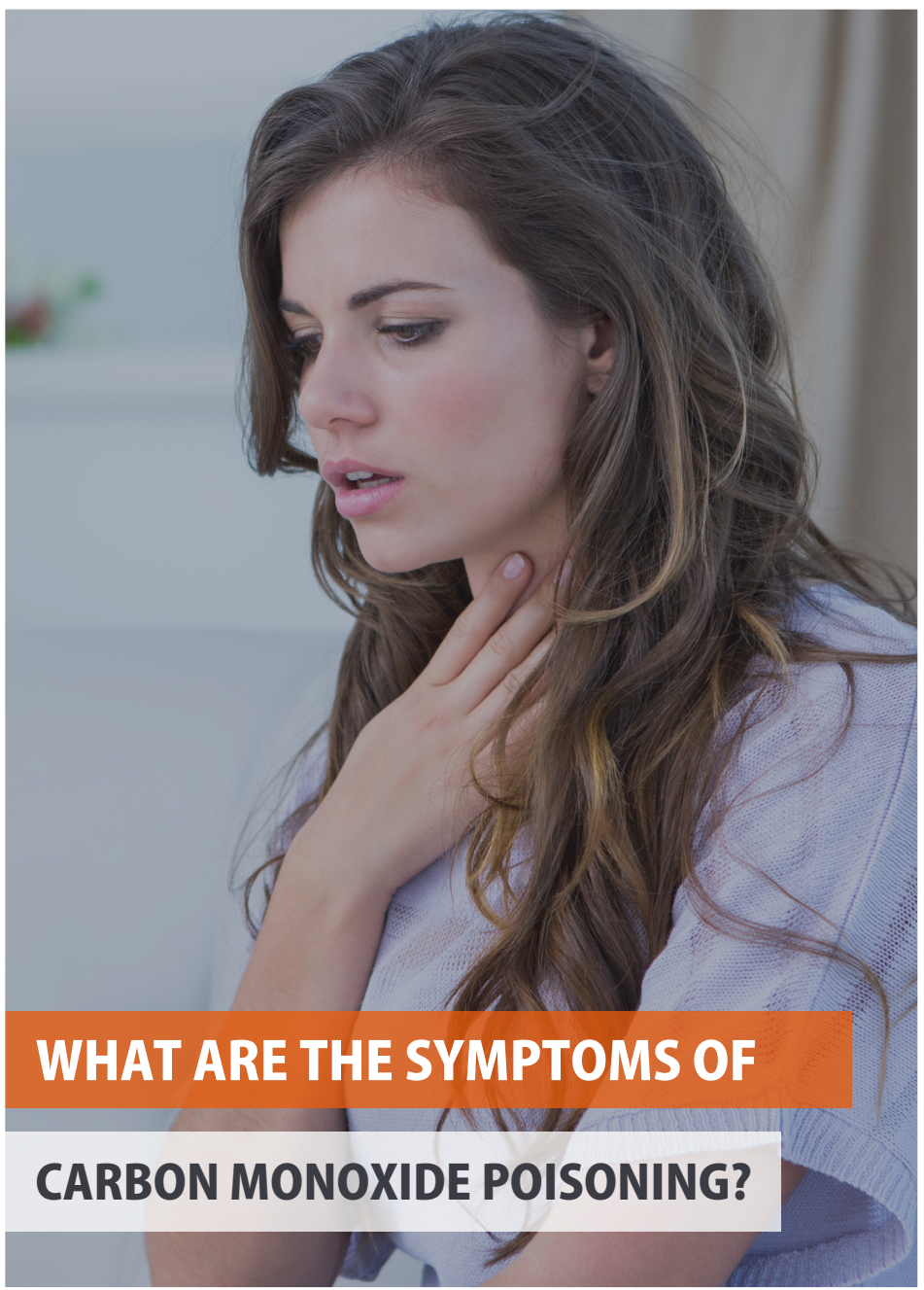
## WHAT IS CARBON MONOXIDE POISONING?

Carbon monoxide (CO) is an extremely dangerous colourless, odourless and tasteless gas emitted when fuel is burned inefficiently. CO is invisible to the human senses so a carbon monoxide alarm is the only certified source of detection.



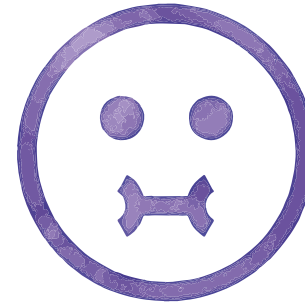
CO is produced when carbon-based fuels burn and there is 'incomplete combustion' - a lack of oxygen supply during a heating process. Human exposure to excess CO levels (those over 100ppm) can lead to carbon monoxide poisoning, whereby the inhaled gas starts to replace the oxygen in your blood stream. Prolonged exposure to CO can lead to potentially life-threatening complications for the body.



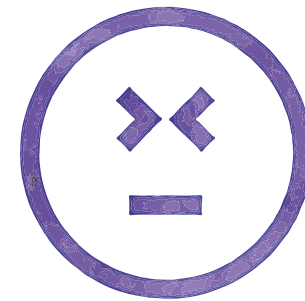


## WHAT ARE THE SYMPTOMS OF CARBON MONOXIDE POISONING?

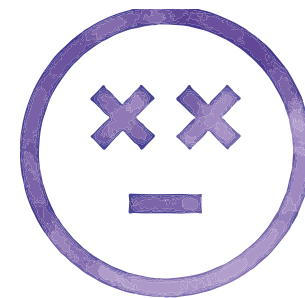
## CARBON MONOXIDE



If you are suffering from mild exposure of carbon monoxide poisoning you might suffer from 'flu-like' symptoms' such as: **Slight headache, Nausea, Vomiting, Fatigue.**



If you are suffering from medium exposure of carbon monoxide poisoning you might suffer from symptoms such as: **Severe headache, Drowsiness, Confusion & Fast heart rate.**



If you are suffering from extreme exposure of carbon monoxide poisoning you might suffer from symptoms such as: **Unconsciousness, Convulsions, Cardiorespiratory failure, Death.**



## WHAT ARE THE SYMPTOMS

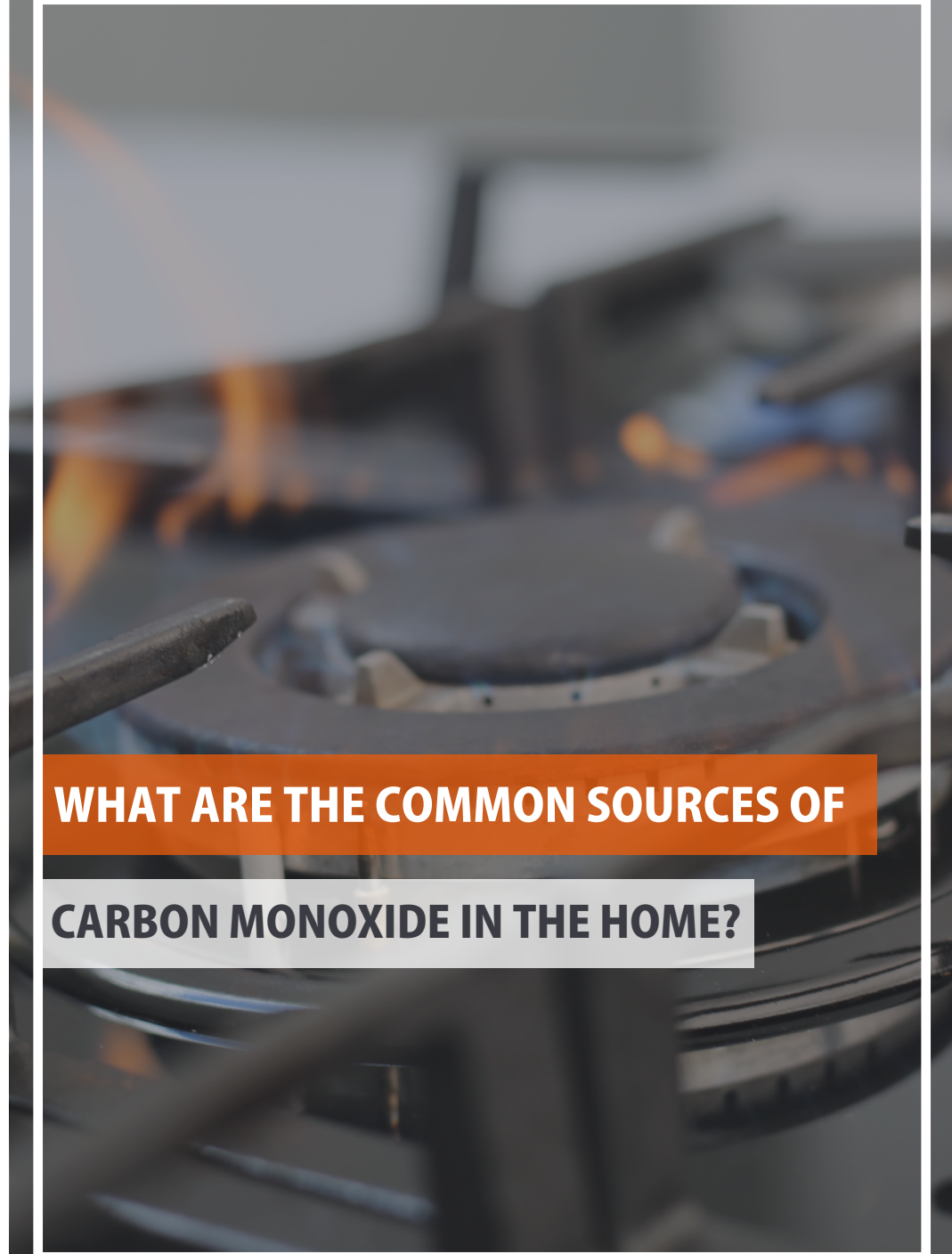
### OF CARBON MONOXIDE POISONING?

Carbon monoxide symptoms are not clearly identifiable, and are often misinterpreted as symptoms of flu or illness. Symptoms are dependent on the level and duration of exposure to the gas.

If your family experience these symptoms simultaneously, and these disappear/get better when you leave the house, then this is a key indicator that there may be CO in your home. Other indicators of CO in your home include the flame on your boiler is burning with a yellow/orange flame (rather than blue), difficulty lighting a gas fire, and 'sooty' stains on your cooker.



## WHAT ARE THE COMMON SOURCES OF CARBON MONOXIDE IN THE HOME?

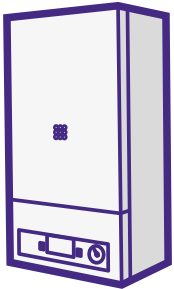






## WHAT ARE THE COMMON SOURCES

### OF CARBON MONOXIDE IN THE HOME



The flame on your boiler should always burn blue. If you notice that it is burning yellow or orange it could be a sign of poor combustion and an increase in CO levels.



If you have a gas fire that has become difficult to light you may find that it is because fuel is not being burned correctly and too much carbon monoxide is being produced.



Sooty stains that appear on appliances that burn fuel like cookers can be an indicator that they are not working correctly and producing high levels of carbon monoxide?

## HOWEVER...

Any item that can burn a carbon-based fuel has the potential to produce CO. These include:

OIL AND GAS  
BOILERS

PORTABLE  
GENERATORS

OIL OR SOLID  
FUEL  
COOKERS

GAS OR  
PARAFFIN  
HEATERS

BARBEQUES

CLOGGED  
CHIMNEYS

WOOD OR GAS  
FIREPLACES

CIGARETTE  
SMOKE

ANY FOSSIL  
FUEL-  
BURNING  
APPLIANCE

All fuel-burning appliances should regularly be checked by registered engineers and faulty appliances should be replaced.

# WHAT TO LOOK FOR IN A

## CARBON MONOXIDE ALARM?



### CERTIFICATION

You should always ensure your carbon monoxide alarm complies with British Standard EN 50291 and carries a British or European approval mark, such as a Kitemark. CO alarms should be installed, checked and serviced in line with the manufacturer's instructions.



### AUDIBLE ALARM

It is crucial that you have an audible alarm (rather than just a 'colour change' or 'back spot' indicator tool), which will sound an alarm when it detects carbon monoxide. This is because you can be most at risk from CO poisoning when you are asleep, and you may not be aware of early CO symptoms until it is too late. Having an audible CO alarm could wake you and save your life.



### POWER SOURCE

Hard-wired, mains powered CO alarms are available, but require professional installation by an electrician to connect them to your home's wiring. Battery powered alarms are available with either replaceable or sealed for life batteries. The benefit of sealed for life batteries means you can simply fit and forget the CO alarm, and trust that it's powered for its entire product life (usually 7 or 10 years).

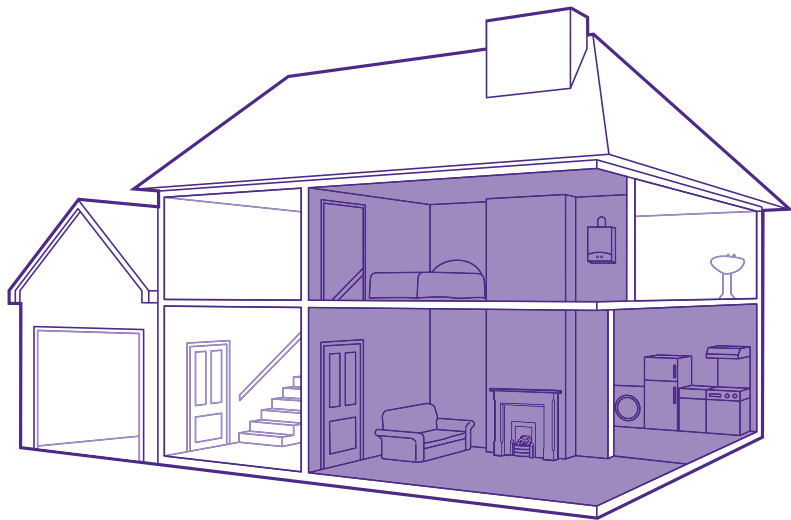


## WHERE SHOULD I INSTALL MY

## CARBON MONOXIDE ALARM?



Battery powered carbon monoxide alarms can either be fixed to a wall, or left free-standing in the home, or used portably (e.g. by taking them on holiday). Here are some best practice recommendations when installing a CO alarm:



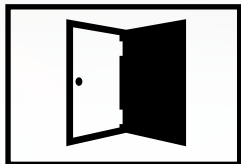
1. Alarms should be fitted in every room that contains a fuel burning appliance (or, if it is an enclosed boiler, just outside the enclosure), any room that has a flue running through it, and in every sleeping room.
2. CO alarms should be at least 300mm from any wall (for ceiling mounted alarms) and at least 150 mm from the ceiling, above the height of any door or window (for wall mounted alarms).
3. Between 1 and 3 m (measured horizontally) from the potential source of CO.

For more information, see your [carbon monoxide alarm user manual](#).

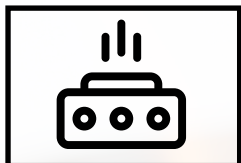


## WHAT TO DO IN THE EVENT OF A CO INCIDENT

## WHAT TO DO IN THE EVENT OF A CO INCIDENT



**1. Make sure to open all doors**



**2. Stop using all fuel-burning appliances and, if possible, turn them off.**



**3. Evacuate the building leaving the doors and windows open.**



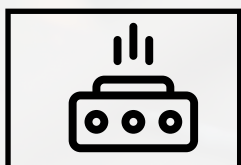
**4. In an emergency call National Gas Service on: 0800 111999. Alternatively contact your gas or other fuel supplier on their emergency number.**



**5. Get medical help immediately for anyone suffering the effects of carbon monoxide poisoning**



**6. Don't re-enter the property until the carbon monoxide alarm has stopped**



**7. Don't use the appliance again until it has been checked by an expert.**

In total, an average of six people attend A&E every day with suspected CO poisoning, and as shown in Freedom Of Information (FOI) reports sourced by Project SHOUT, there has been a 10% increase in NHS reported incidents of carbon monoxide poisoning. From 2,220 cases in 2013/14 to 2,430 cases in 2015/16. Worryingly, this rise is particularly prevalent in the number of incidents that involve children and elderly some of the most vulnerable in society.

***"CO poisoning can only be detected by an alarm as you can't see, smell or taste it. Children and older people are particularly at risk because their bodies are more susceptible and, in the case of some older people, are less likely to keep their appliances serviced."***

**- Rob Lyon, the Project SHOUT campaign director.**

It is therefore vital that homeowners/tenants know about, and protect themselves against CO by regularly servicing their fuel burning appliances and installing a CO alarm.

If you would like to know more about carbon monoxide alarms, visit [our website](#), or to get involved in the Project SHOUT campaign visit the dedicated [ProjectSHOUT](#) website.



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