



Department of  
**Health, Social Services  
and Public Safety**

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AN ROINN

**Sláinte, Seirbhísí Sóisialta  
agus Sábháilteachta Poiblí**

MÁNNYSTRE O

**Poustie, Resydënter Heisin  
an Fowk Siccar**



# CARBON MONOXIDE

## Are you at risk?



## **Carbon Monoxide**

### **Are you at risk?**

Are you having headaches, having difficulty thinking clearly or feeling tired or sick?

Have you had your heating and cooking appliances, chimneys and flues checked recently?

Find out about the risks of exposure to carbon monoxide (CO) and how to avoid them – it could save your life.



### **What is Carbon Monoxide?**

Carbon monoxide (CO) is a poisonous gas that you can't see, taste or smell but CO can kill without warning in just a matter of minutes. It is released when a carbon-containing fuel – such as gas, oil, coal, coke, petrol or wood – doesn't burn fully because not enough air is available. This can happen when appliances such as room and water heaters, fires and cookers have

been wrongly installed or poorly maintained, or when a chimney, flue or air vent into a room, such as an air brick has been fully or partially blocked. Poor ventilation adds to the problem by allowing CO concentrations to build up. Anyone in a room with a faulty appliance may potentially be affected.

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## Are you at risk?

CO can kill without warning, sometimes in a matter of minutes. Low levels of CO breathed in over longer periods of time may not kill you, but they can still harm you as they may affect your nervous system or memory.

### **How will i feel if i am being poisoned by CO?**

CO poisoning can be difficult to recognise, because its symptoms are the same as those of many other common conditions. For example, you may experience headaches, tiredness, difficulty thinking clearly and feeling sick.

Sometimes it may feel as though you have food poisoning or that you are coming down with flu.

You may also notice that others in the same property have similar symptoms.

**If the symptoms are less severe when you are away from your property - for example, at work or on holiday - you should be suspicious that CO may be a cause.**

The most vulnerable to the effects of CO are older people, pregnant women, babies, children and those with breathing problems or heart disease.





## **What to do if you have these symptoms... ...and think that they could be caused by CO.**

Turn off **ALL** your cooking and room- or water heating appliances that use fuel other than electricity. Open the windows in the room and in other parts of your home to let in fresh air, and move outside. For solid-fuel room or water heaters, fires and cookers, open windows and then carefully turn off the appliance or put out the fire (or allow it to burn itself out) but do not remain in the room.



See a doctor at once and say that you think you may have CO poisoning. You may be offered a special test for CO poisoning, which could involve a breath sample or a blood sample. You should be aware that CO leaves the body quite quickly, and tests made some hours after your exposure has stopped may not reveal high levels of CO in either your breath or you blood.

Call a suitably qualified engineer to check all your cooking and room or water-heating appliances (see Further information). Your local authority environmental health office may be able to offer some advice.

If you rent a property, your landlord should be able to assist in resolving the matter.

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## Are you at risk?

### How can i protect myself from CO poisoning?

**Have all appliances, flues and chimneys correctly installed and serviced by trained, reputable, registered and competent engineers - do not attempt to do this yourself. Never use a poorly maintained appliance.**



Appliances should be maintained and serviced regularly (for example an annual service). By law, in Northern Ireland, engineers for gas appliances must be registered with a body approved by the Health and Safety Executive for Northern Ireland (HSENI). Engineers for solid fuel appliances are registered with the Heating Equipment Testing and Approval Scheme (HETAS), and those for oil appliances with the Oil Firing Technical Association (OFTEC) – See Further information.

**Fit an audible CO alarm that meets European Standard EN50291, showing a British Standards Kitemark or LPCB (Loss Prevention Certification Board) logo.** These alarms are available in homeware

or DIY stores, and you must make sure that you follow the alarm manufacturer's instructions for installation and maintenance. You may also wish to take a battery-operated audible CO alarm with you on holiday. You



## How can I tell if I might be at risk?

# Potential Sources of Carbon Monoxide in the Home

Fit an audible CO alarm that meets European Standard EN50291, showing a British Standards Kitemark or LPCB (Loss Prevention Certification Board) logo.

Unvented space heater

Caravans, boats and mobile homes are at risk because portable appliances that use bottled fuels such as liquid petroleum gas, paraffin or kerosene are often used for heating and cooking.

Operating barbecue grill in enclosed areas such as the garage

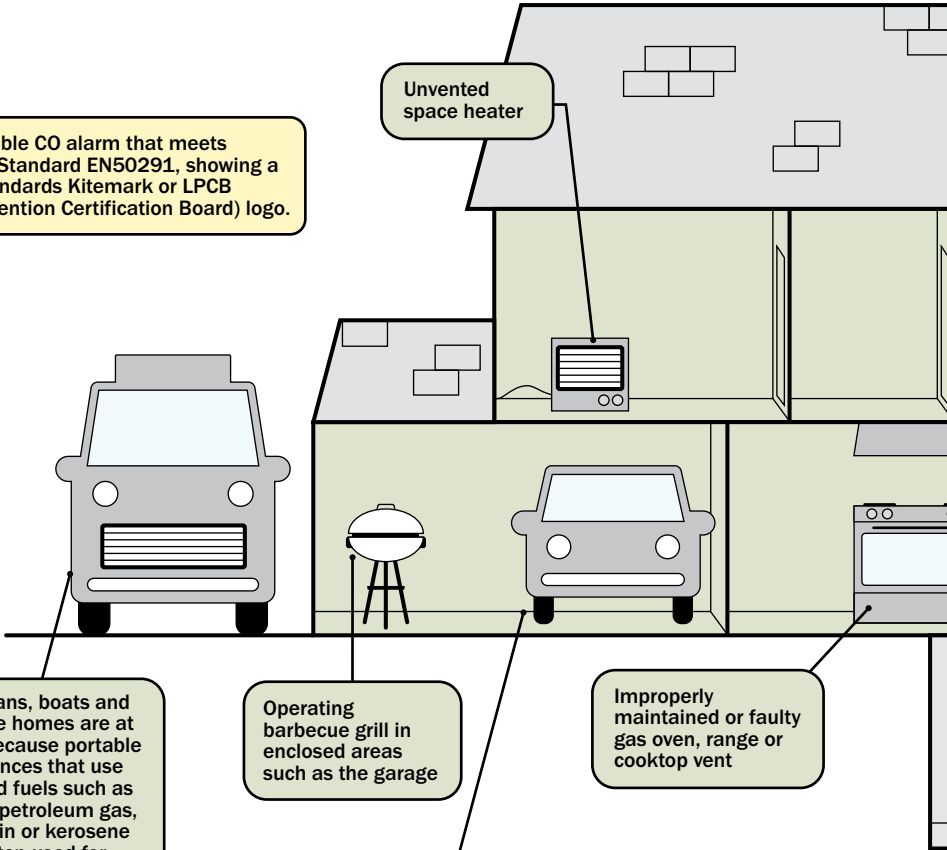
Improperly maintained or faulty gas oven, range or cooktop vent

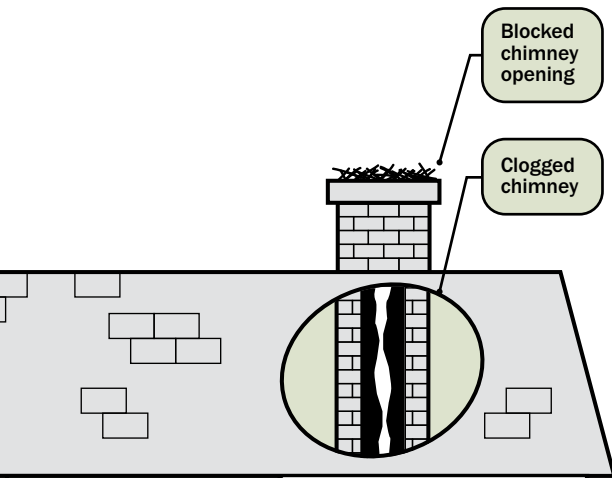
Vehicle engine or generator exhaust gases can also contain high levels of CO. Do not start your car in an enclosed garage.

For all appliances, CO may be present if you notice sooty or yellow/brown staining on or around the appliance, such as on the walls.

Are your heating and cooking appliances safe?  
If the pilot light or flame from a gas appliance is burning orange or yellow instead of mostly blue, this may indicate incomplete burning of fuel. Another sign to look for- does the pilot light frequently blow out?

\* see footnote

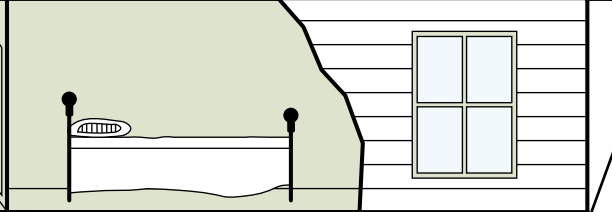




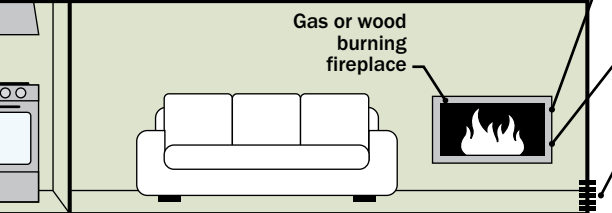
Blocked chimney opening

Clogged chimney

Gas appliances installed in rented accommodation should receive an annual safety check to make sure they work properly. This is the responsibility of the landlord, who should keep a record of each safety check for at least two years and issue copies to tenants.

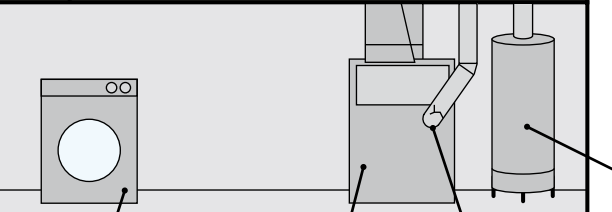


If you see or smell smoke or have excessive condensation in the room where the appliance is installed or if there is blackening of the china clay radiants of gas fires.



Gas or wood burning fireplace

CO can also be found in the smoke coming from solid-fuel, wood or oil-burning appliances including barbeques. Paraffin heater



If you have had building work done recently, such as double glazing installation, or if floodwater has caused the build-up silt of debris, this may affect you property's ventilation.

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\* see footnote

Improperly installing or faulty gas clothes dryer, furnace or water heater

Cracked heat exchanger

Leaking, cracked, corroded or disconnected flue or vent pipes

\* Note that this does not apply to fuel-effect, living flame or decorative-flame gas fires. They are designed to look like flames from a solid-fuel appliance, and so are meant to appear yellow or orange.



can also buy CO detection patches and ‘black-spot’ indicators, but these will not wake you and warn you if dangerous levels of CO develop. It is important to remember that fitting an audible CO alarm is not an alternative to having appliances, flues and chimneys serviced and tested.

### **Keep rooms well ventilated while using an appliance.**

Fumes from a room or water heater, fire or cooker may affect your health unless there is enough ventilation in the room. This also applies to running a vehicle or generator in a confined or poorly ventilated area such as a garage with the door closed.

### **Other important tips**

- If you live in rented accommodation, landlords have a legal duty to have any gas appliances they provide, including cabinet heaters and flues, checked annually and to provide you with a copy of the safety check record. Landlords also have a legal duty of care for you. For appliances that use fuel other than gas, it is strongly recommended that landlords use suitably trained, reputable, registered engineers to install, service and inspect appliances (see above).





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## Are you at risk?

- If you're buying a new solid-fuel open fire, room heater or boiler, check that it has an air intake control to regulate the burning rate, and that the room in which it is being installed is properly ventilated. For advice on solid-fuel heating, call the Solid Fuel Association (see Further information).



- Fitting an extractor fan in the same room as an appliance will be beneficial unless it affects the draw of an existing flue or chimney in the same or adjoining room, such as those used for flued appliances (in which case the extractor fan may cause the combustion gases to fill the room instead of going up the flue or chimney). It is best to seek expert advice in such situations. Other appliances such as tumble driers can produce the same effect as an extractor fan.





- Get your chimney swept from top to bottom at least once a year.
- Use a qualified sweep, such as a member of the Northern Ireland Association of Chimney Sweeps.

## **People to Consult if you have concerns**

- For gas: Gas Safe Register – call **0800 408 5500**.
- Northern Ireland Gas Emergency Service – call **0800 002 001**.
- For Oil: Local OFTEC (Oil Firing Technical Association) engineer – call **0845 600 2105**.
- Northern Ireland Association of Chimney Sweeps - **[www.niacs.co.uk](http://www.niacs.co.uk)**



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## Are you at risk?

### Advice on the Management of Poisoning

- Contact the Northern Ireland Regional Medicines and Poison Information Service on **028 9063 2032**.
- Refer to TOXBASE or the National Poisons Information Service (NPIS) on **0844 892 0111** for the interpretation of blood sample results and for more detailed advice on CO poisoning.
- The Public Health Agency - **[www.publichealth.hscni.net](http://www.publichealth.hscni.net)**
- HSE has also prepared a series of short videos on gas safety, which help to highlight typical scenarios and symptoms of CO poisoning: **[www.hse.gov.uk/campaigns/worksmart/videos](http://www.hse.gov.uk/campaigns/worksmart/videos)**
- The Health and Safety Executive for Northern Ireland (HSENI) in partnership with relevant stakeholders has produced a consumer information sheet about Gas Safe Register, available through its helpline **0800 032 0121** and at **[http://www.hseni.gov.uk/domestic\\_gas\\_leaflet.pdf](http://www.hseni.gov.uk/domestic_gas_leaflet.pdf)**

