



You are:

- Inspecting a privately rented, owner occupier or social housing property
- Following up reported exposure to CO
- Following up a reported odour complaint

Could the premises you are inspecting contain a low level source of CO which is making the occupants ill?

1

Be aware that you could be entering a contaminated environment and that you should take appropriate precautions. Do not put yourself at risk.

If you suspect high levels of CO in the property and/or serious occupant exposure phone:

Ambulance/police: 999

National gas emergency service: 0800 111 999

2

Look for:

- Presence of gas (flued or unflued), oil or solid fuel burning appliances (including cookers)
- Presence of sooty stains/deposits around the fuel burning appliance
- Sufficient means of ventilation for combustion appliances to work properly (see the notes)
- Sufficient means of ventilation for the room – extract fan, trickle vents, openable windows
- Flames to gas appliances burning yellow instead of mostly blue
- Flues and appliances sited safely and well maintained by a registered engineer (see the notes)
- A properly sited and working CO alarm (test it and take a reading if possible)
- An integral garage

Take readings if you have a device to measure CO

3

Ask the occupant:

- Do you ever use your oven or gas stove for heating purposes as well as for cooking?
- Has the double glazing been recently fitted (if present)? (see the notes)
- Do you feel in better health at home or at your place of work? (see the notes)
- Do you or any other occupants suffer from headache, flu-like symptoms, drowsiness, nausea?
- Do you notice odours coming from adjacent properties?
- Have you started using appliances after a long break?

Could the problem originate from an adjoining property?

4

Stopping further exposure:

- Make sure appliances are turned off and windows are opened
- Make sure the relevant safety service is contacted
- Advise the occupant to have all appliances checked by a registered engineer before using again
- Notify your local PHE centre

5

Recommend that the occupant:

- installs a CO alarm (BS EN 50291 compliant)
- contacts other agencies for assistance, eg social services
- contacts their GP or attends a hospital emergency department immediately, especially if they have young children or babies

Follow-up actions to take:

- check adjoining properties under the appropriate legislation
- consider serving a notice on the landlord of a rented property (see the notes)

6

Box 1 Property inspections and carbon monoxide

Referrals leading to inspection of a property can be from a number of different sources: PHE centre, health visitor, social services, housing association, complaint from the occupier or a neighbour.

CO poisoning can occur in all income groups and types of housing.

Box 2 Carbon monoxide is a lethal gas at high levels

CO is a colourless, odourless, tasteless gas. Remember, malfunctioning ventilation equipment may cause the presence of an odour as well as cause CO to accumulate. If you suspect high levels of CO are present, call the emergency services. Every employee has a duty to take reasonable care for the health and safety of themselves and other people (Section 7, HSW Act 1974).

Box 3 Identification of carbon monoxide sources in premises

Gas, oil, coal, coke and wood heating appliances are the most common sources of CO in the home. Visual inspections are important. Flames to malfunctioning appliances may burn yellow/orange instead of mostly blue (if it is not a decorative fire) and soot stains may be seen on radiators or the wall adjacent to the appliance. Some properties containing malfunctioning appliances may suffer from permanent condensation during the winter months if ventilation is inadequate. Powerful extract fans are capable of drawing fumes back into properties. Remember, there may be more than one source of CO. Ask to see safety certificates for appliances in rented accommodation. Ask when chimneys and flues were last swept.

Use the Housing Health and Safety Rating System (HHSRS) to assist you in identifying possible sources and causes of CO leakage.

Box 4 Occupant behaviour

Inappropriate appliance use, particularly flueless ones such as gas ovens and stoves, can lead to a build up of CO, so questioning the occupant(s) on their use of the appliance is important. Recent fitting of double glazing or blocking vents will suddenly reduce ventilation rates in a previously well ventilated or 'leaky' house. The reduced ventilation rate will cause CO to build up in the property. It is also important to ascertain if heating appliances have started being used due to a sudden change in the weather, or if an appliance has been newly installed.

Asking the occupant(s) in which environment they feel better is important as exposure to CO could be linked to their job, which might involve exposure to smoke, fumes or motor vehicle exhaust. CO exposure can be linked to leaking car exhaust systems, inappropriate use of generators or BBQs and to activities such as go-karting or shisha smoking.

Box 5 Stopping further exposure is essential

Preventing further exposure is the most important thing you can do. If you strongly suspect a CO leak, make sure that fossil fuel appliances are turned off, windows are opened and the correct emergency service is called. If the occupant(s) have been exposed and have experienced any of the symptoms listed in box 4, advise them to seek medical attention immediately. This is especially important if the occupants include children, babies or pregnant women. If occupants experience more severe symptoms such as vomiting, chest pains or loss of consciousness, call an ambulance.

Box 6 Recommendations and follow up requirements

Recommend the purchase of an audible CO alarm for installation in the home, but stress that an alarm is not a substitute for regular maintenance of appliances using an appropriately registered engineer. If you are suspicious that the problem could be from an adjoining property, carry out an investigation under the appropriate legislation. Consider serving a notice on the landlord of rented accommodation where appliances are found to be a source of CO or are poorly maintained.

Useful contact numbers

999	0800 111 999	0800 408 5500	0800 300 363
Ambulance/police	National gas emergency service	Gas Safe Register	HSE (gas safety for GB)
111	0845 634 5626	0845 658 5080	0344 892 0555
NHS 111	HETAS (solid fuel)	OFTEC (oil and biofuel)	PHE 24-hour chemicals hotline