

## UNDERSTANDING THE DANGERS OF CARBON MONOXIDE

*This advice guide is part of a series of free guides produced by the Association of Plumbing & Heating Contractors Ltd. which provide consumers with essential basic information on a range of plumbing and heating matters including installations, repairs and maintenance.*

### What is carbon monoxide?

Carbon monoxide (CO) is produced by the incomplete burning of any fuel, including Gas, Oil or Solid Fuels. It is particularly dangerous because it is a colourless, odourless, tasteless, poisonous gas. When CO enters the body, it prevents the blood from bringing oxygen to cells, tissues, and organs. You can't see it, taste it or smell it but CO can kill quickly without warning or cause serious harm to health if breathed in over a long period of time. In extreme cases paralysis and brain damage can be caused as a result of prolonged exposure to CO.

According to statistics from the Health & Safety Executive, every year around 11 people die from CO poisoning caused by gas appliances and flues that have not been properly installed, maintained or that are poorly ventilated. This is an important factor, and you must ensure that your cooking and heating appliances are regularly and only ever checked or installed by a competent plumbing and heating engineer such as an APHC member.

There are signs that you can look out for which indicate incomplete combustion is occurring and may result in the production of CO;

- Yellow or orange rather than blue flames (except fuel effect fires or flueless appliances which display this colour flame).
- Soot or yellow/brown staining around or on appliances.
- Pilot lights that frequently blow out.
- Increased condensation inside windows.
- CO can be produced by any combustion appliance, including those that burn oil, wood and coal. If you have one of these appliances you should make sure that it is serviced and maintained by a competent person and the chimney is regularly swept.

### Symptoms of carbon monoxide poisoning

Early symptoms of CO poisoning can mimic many common ailments and may easily be confused with food poisoning, viral infections, flu or simple tiredness.

Symptoms to look out for include:

- Headaches or dizziness
- Breathlessness
- Nausea
- Loss of consciousness
- Tiredness
- Pains in the chest or stomach
- Erratic behaviour
- Visual problems

The NHS website has more information, or you can telephone NHS Direct on **0845 4647**.

If you or your family experience any of the above symptoms and believe you may have been exposed to CO, you should seek urgent medical advice from either your GP or an A&E department.

### **How to protect yourself from carbon monoxide**

To prevent CO from forming you should:

- Ensure all air vents are open and clear - it can be tempting to cover air vents in windy or cold conditions, but they are there to allow the appliance to 'breathe'.
- Carry out regular maintenance of all cooking and heating appliances and flues/chimneys.
- Regular maintenance can prevent the appliance burners, vents or flue becoming blocked.
- Fit an audible CO alarm using these guidelines:
  - Fit an alarm in each room with a combustion appliance.
  - Use an audible CO alarm. The 'black spot' style detectors that change colour when CO is present don't make a sound. It is important to choose an alarm that will wake you up if you're sleeping.
  - Test your alarm regularly using the test button and replace batteries annually or when the low battery signal sounds.

If you suspect you are being exposed to CO, you should;

- Call the National Gas Emergency Service on **0800 111 999**.
- Switch off the appliance and shut off the gas supply at the meter control valve.
- Open all doors and windows to ventilate the room.
- Visit your GP and tell him/her that you believe you may have been exposed to CO.

### **In summary**

CO poisoning is easy to prevent with regular maintenance and servicing of fuel burning appliances. An audible CO alarm can give you additional peace of mind that you have done as much as you can to prevent yourself from coming to harm.

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