



Advice factsheet

How to stay safe

1. FIT AN AUDIBLE ALARM

- Alarms can be bought from many DIY stores, some supermarkets and energy suppliers for as little as £15. If you are a tenant, your landlord may provide you with one.
- We do not recommend the use of 'Black Spot' indicators as these are often not as accurate and will not alert or wake you if Carbon Monoxide is present.

2. SERVICE YOUR APPLIANCES

- Have all gas appliances serviced and safety-checked annually by a Gas Safe registered engineer. To check if an engineer is Gas Safe registered visit www.gassaferegister.co.uk or call **0800 408 5500**.
- If you live in rented accommodation with gas appliances your landlord must provide you with proof that a Gas Safe registered engineer has safety-checked the appliances within the last 12 months.
- For solid fuel appliances, contact HETAS (www.hetas.co.uk or **0485 634 5626**) and for oil appliances contact OFTEC (www.oftec.co.uk or **0845 658 5080**).

3. DON'T BLOCK VENTILATION

- Make sure that vents, flues and chimneys aren't blocked.
- Clean flues and throat plates monthly.
- Chimneys should be swept at least once a year – or more often if used heavily.

4. KNOW THE SIGNS

- The six main symptoms of Carbon Monoxide poisoning are headaches, dizziness, nausea, breathlessness, collapse and loss of consciousness.
- Another key indication that Carbon Monoxide may be the cause is if symptoms disappear or get better when you leave home and come back when you return.
- Look out for sooting or staining on or around your appliance and for gas appliances burning with a lazy yellow or orange flame rather than a sharp blue one. Excessive condensation in the room where the appliance is installed is another sign.

What are the effects?

When Carbon Monoxide is breathed in, it mixes with haemoglobin in the bloodstream and forms a compound called Carboxyhaemoglobin. Carboxyhaemoglobin affects blood vessels in the body, causing them to become 'leaky'. This can lead to swelling in the brain, causing unconsciousness and neurological (nerve) damage. Carbon Monoxide absorbs oxygen in the blood and inhibits its effectiveness in vital organs.

The longer someone breathes in Carbon Monoxide, the worse the symptoms will get. People affected may lose their balance, vision and memory, have slurred speech and eventually they will lose consciousness. This can happen within an hour if there are high levels of Carbon Monoxide in the air.

People with mild symptoms usually make a full recovery, but between 10-50% of people with serious poisoning can have long-term problems, including:

- permanent brain damage, including a worsening memory or difficulty concentrating (in rare cases people can develop Parkinsonism, which consists of the main symptoms of Parkinson's disease - shaking, stiffness and slowness of movement);
- coronary heart disease, although this usually only occurs after years of Carbon Monoxide poisoning;
- urinary incontinence, which is particularly common in women.

Young children and elderly people are particularly at risk from Carbon Monoxide poisoning because their bodies are less able to withstand the effects. Half of those killed are aged under 12 or over 60. The elderly are also more at risk because they are more likely to use older appliances and have a lower awareness of the potential danger.

Diagnosis and treatment

If you have the symptoms of Carbon Monoxide poisoning, a blood sample will be taken to check the amount of carboxyhaemoglobin in your blood. An electrocardiogram (ECG) may also be carried out to see how well your heart is pumping blood around your body.

If you have been exposed to high levels of Carbon Monoxide you will need to be treated in hospital. You may be given 100% oxygen through a tight fitting mask (normal air is only 21% oxygen). The high concentration of oxygen that you breathe in helps the body to make oxyhaemoglobin more quickly to flush out the carboxyhaemoglobin.

If you have had extensive exposure to Carbon Monoxide and nerve damage is suspected, you will be given hyperbaric oxygen therapy (HBOT) within 6 hours. HBOT is a treatment that saturates the body with pure oxygen and helps to overcome the oxygen shortage caused by Carbon Monoxide poisoning.

In an emergency

If your alarm goes off or you spot other signs of Carbon Monoxide

- Open doors or windows for ventilation.
- Call the relevant emergency advice line: Gas Emergency Service (24 hours) **0800 111 999**; Solid Fuel Advice Line **0845 601 4406**; Oil (OFTEC) **0845 658 5080**.
- Seek medical advice.
- Have all appliances serviced and checked by a registered engineer. Do not use them until you're told it's safe to do so.

If you feel unwell

- Go to your GP, call NHS Direct on **0845 4647** (NHS 24 in Scotland on **08454 242424**) or, if it is urgent, call 999 for an ambulance.

**For more information and advice on how to stay safe visit:
www.co-bealarmed.co.uk**