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Keeping warm and saving energy in the home this winter



Who is National Energy Action

National charity, working in England, Wales and Northern Ireland

- Provides **energy advice** and **support**, in person, online and via our phone line
- Promotes **energy efficiency**
- Runs **regional projects**
- Reports and analyses information
- **Informs government policy**
- Develops **new technologies**



Who is most affected by cold homes?



Older people



People on a low income



People with health issues



Pregnant people



Babies and children



Families

Many people in many different circumstances

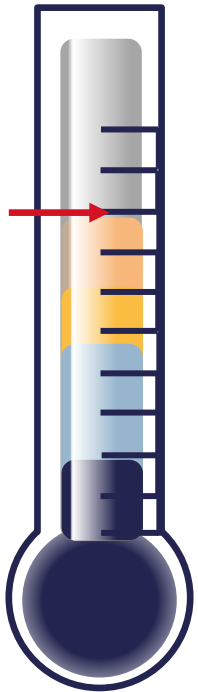


How warm should my home be?

Healthy Home Temperatures

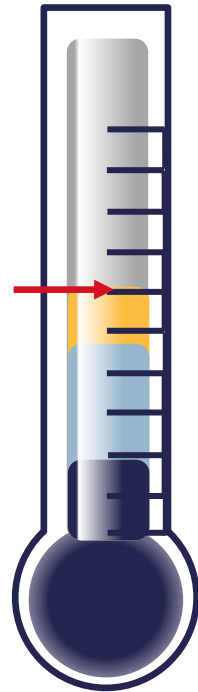


Low temperatures: impacts on health



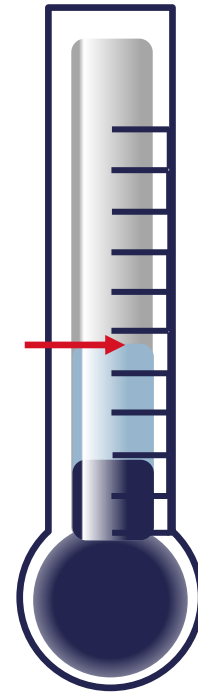
Between 18-24°C (64-75°F):

No risk to healthy people



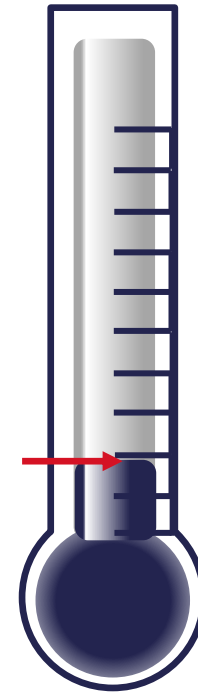
Below 16°C (61°F):

Less resistance to respiratory infection



Below 12°C (54°F):

Increased blood pressure and viscosity

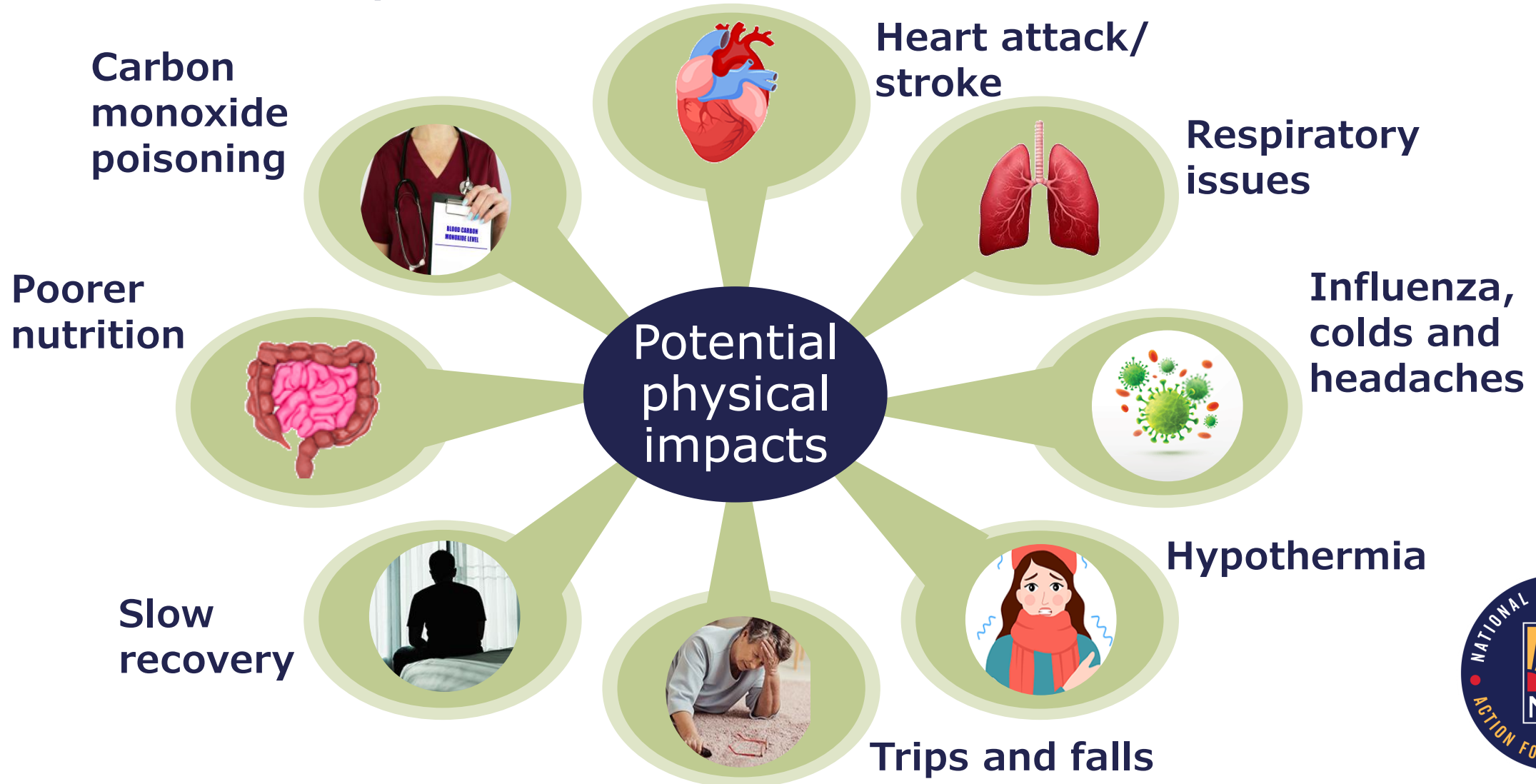


Below 5°C (41°F):

Deep body temperature falls



Health impacts of cold homes



Carbon monoxide (CO)

Prevalence in fuel poor homes
and its impacts



Carbon monoxide origins

Carbon monoxide, or CO is a colourless, odourless and tasteless gas produced when fuels are burned incorrectly. It can be released from several household appliances used daily.

- Gas boilers, fires and cookers
- LPG
- Wood and coal burners and fires
- Ash
- Smoking cigarettes/ shisha pipes
- Heating oil
- Barbeques
- Fuelled generators
- Car engines in enclosed spaces

Be aware that CO can move between buildings. This could be between terraced properties. But CO could also move upwards, e.g. from a takeaway to a flat above.



Carbon Monoxide and fuel poor homes



Possible Reasons

- Unable to afford gas safety checks
- Living in energy-inefficient homes, which encourage CO risks
- Suffering from ill health, so may not be able to identify the effects of CO
- Partaking in risky CO-related behaviours



Risky behaviours

Certain behaviours may influence carbon monoxide exposure.

- Cooking with a large pot over multiple gas burners
- Using oversized pots for gas burners
- Putting tin foil around gas burners (intending to keep it clean)
- Heating the home using the grill or oven
- Using incorrectly placed generators to heat or power the home
- Smoking cigarettes or shisha pipes indoors



Visual signs of carbon monoxide

You may be able to see visual signs that carbon monoxide has spilled out of appliances.

- There may be sooty or yellow/brown stains around or on the appliance, particularly on the grills/bars of gas fires or around boiler flues
- You may also see yellow or orange flames instead of blue flames on gas appliances (including cookers)
- Finally, you may also find that the pilot lights of appliances frequently blow out, as there is not enough oxygen for the flame to continue burning



Signs and Symptoms



What to look out for

Carbon monoxide is a gas with no odour, and without proper detection, it can lead to serious illness for residents. Symptoms of CO exposure Include:

- Headaches
- Nausea
- Dizziness
- Shortness of breath
- Fainting
- Loss of consciousness



Steps to take

If your carbon monoxide alarm sounds, you're experiencing CO poisoning symptoms or you believe there to be a leak, you should act immediately.

- stop using all appliances and evacuate the property immediately (try to stay calm and avoid raising your heart rate)
- call the National Gas Emergency Service number on 0800 111 999 to report the incident or the Health and Safety Executive (HSE) Gas Safety Advice Line on 0800 300 363
- do not go back into the property (wait for advice from the emergency services)
- get immediate medical help

If a householder believes they have been exposed to CO, they feel unwell or they are worried, they should call NHS 111, contact their GP or contact the emergency services on 999 in an emergency.



Reducing the risk of carbon monoxide

Minimising the risk of CO in the home



CO alarms

Carbon monoxide alarms come in many different brands and styles.

Key things to keep in mind:

- Is the alarm suitable for the householder?
- Power source: battery or hard wired?
- Has the system been tested?
- Has the alarm reached its shelf life?
Maximum is 10 years, recommended 5-7 years
- Location of alarm
- Necessity of alarm: Home all electric? CO can still come through from a neighbour's home

Since 2022, landlords must ensure that a carbon monoxide alarm is equipped in any room used as living accommodation containing a fixed combustion appliance.



Servicing appliances

All fossil fuel burning cooking and heating appliances should be serviced/ checked regularly.

All appliances should be serviced by a qualified and registered engineer.

- Solid fuel appliances should be serviced by **HETAS**
- Oil appliances by **OFTEC**
- Gas appliances by a **Gas Safe Registered** engineer

Checks will ensure that flues are not blocked and that pipes are not leaking, which could allow carbon monoxide to escape if not dealt with.

Gas boilers should have an annual service. Other gas appliances should have an annual gas safety check to ensure that they are safe to use.



Adequate ventilation

Ventilation prevents carbon monoxide buildup in the home.

Carbon monoxide occurs when fossil fuels do not have enough access to oxygen and burn incorrectly. It is extremely important to have an uninterrupted supply of oxygen in the immediate vicinity of the appliance to ensure it operates correctly.



**Chimneys and
flues**



**Enclosed
spaces**



**Open windows/
doors**



Finding support

Financial and other support available to those in fuel poverty and at risk of carbon monoxide.



Energy efficient home improvements

There are several schemes available to support householders to make their homes warmer and cheaper to heat.

Through **ECO**, the **Home Upgrade Grant**, the **Great British Insulation Scheme** and others, householders can claim free or discounted home energy measures to improve both energy efficiency and upgrade to safer systems.

You can find out more about these schemes at:
[gov.uk/government/collections/find-energy-grants-for-you-home-help-to-heat](https://www.gov.uk/government/collections/find-energy-grants-for-you-home-help-to-heat)



Free gas safety checks

The average cost of a gas safety certificate ranges between £60-£90, but there are other options.

Suppliers offer free gas safety checks to customers meeting certain eligibility criteria as part of their standard license conditions. You can find out more by contacting individual suppliers or checking their websites.

Most gas distribution network operators offer free gas safety checks to customers on the **Priority Services Register**. You can find out your own network operator at:
energynetworks.org/customers/find-my-network-operator

Remember, landlords are required by law to have an annual gas safety check for all gas appliances, and an annual gas boiler service conducted by a Gas Safe registered engineer.



Priority Services Register

The **Priority Services Register (PSR)** is a free UK-wide service which provides extra advice and support, including when there's an interruption to your electricity, gas or water supply.



Priority Services Register (PSR)

Those on the PSR can receive additional services, such as:

- Free gas appliance safety check
- Relocation of meter for improved access
- Password protection scheme
- Quarterly meter readings
- Bill nominee scheme
- Advance notice if electricity supply is to be interrupted
- Services for customers with impaired hearing or vision



Further support

- **National Energy Action** - nea.org.uk
- **Priority Service Register** - thepsr.co.uk
- **Citizens Advice** - citizensadvice.org.uk
- **Energy Saving Trust** - energysavingtrust.org.uk
- **Health and Safety Executive (HSE)** - hse.gov.uk
- **Gas Safe Charity** - gassafecharity.org.uk



Thank you for participating

Any questions?

Visit www.nea.org.uk



National Energy Action is an independent charity Registration No. 290511

