

THE DIFFERENCES BETWEEN CO AND CO₂, WHAT ARE THE DANGERS?

Many people, including news outlets who report on incidents, often confuse the differences between carbon monoxide (CO) and carbon dioxide (CO₂). Both gases are a combination of oxygen and carbon, which is why the two are generally mixed up, however, both CO and CO₂ can be extremely dangerous, therefore it is important to understand the difference.

Carbon Monoxide (CO)

Carbon monoxide gas is completely odourless, tasteless, and colourless. Incomplete burning of carbon based fuels such as wood, coal, oil and gas causes the CO to form. It is a highly poisonous and is often described as the 'silent killer'. If CO is inhaled, the blood is unable to bring oxygen to cells, tissues, the brain and organs. High levels of CO can kill very quickly with little or no warning; as a result, around 50 people die every year caused by CO poisoning. Lower levels of CO can still be critical to health if inhaled for longer periods of time. In rare cases, those who have inhaled CO may even suffer from paralysis and brain damage due to prolonged exposure.

Symptoms of CO exposure

- Headaches
- Breathlessness
- Dizziness
- Nausea/Vomiting
- Collapse/loss of consciousness
- Drowsiness
- Tiredness
- Pains in chest
- Pains in stomach
- Problems with sight

If you, or someone around you experience these symptoms, you should seek urgent medical advice.



Preventive Measures to protect from CO exposure

Whilst CO is an extremely dangerous gas, it is easy to prevent exposure. It is highly recommended that you use an **audible CO alarm**, these alarms must be installed, checked, and serviced in line with the manufacturers regulations. If you think that your appliance is spilling CO: contact your National Gas Emergency Service, open all doors and windows, shut off the gas supply and the appliance, and finally, speak to your GP about possible CO exposure.

Carbon Dioxide (CO2)

Symptoms of CO2 Exposure

- Nausea
- Headaches
- Dizziness
- Vomiting
- In most serious cases it can lead to those exposed falling into a coma and ultimately death

If you think you, or someone around you has been exposed to CO2 and are experiencing the symptoms mentioned above, seek urgent medical attention.

Preventive Measures to protect from CO2 exposure

As CO2 has no taste or smell, it can be hard to detect. This is why **CO2 detection monitors** are so important, and a workplace risk assessment should suggest that gas detectors are installed. As CO2 is heavier than air, it is recommended that fixed carbon dioxide sensors are not mounted at head height – for example, we recommend that your monitor is wall-mounted between 305-457mm (15-18 inches) off the ground in order to detect dangerous levels of CO2 immediately, and the Alarm strobe unit is placed at head height and at the entrance to the room, warning of a potential danger before going inside.

Source:

<https://www.analoxsensortechnology.com/blog/2019/02/25/differences-co-co2-dangers/>