

Heater associated carbon monoxide toxicity

**Background**

Carbon monoxide (CO) is an odourless, colourless and poisonous gas that can cause sudden illness and death if present in sufficient concentration in the ambient air. It is released with incomplete combustion of carbon containing fuels. CO poisoning is diagnosed by the clinical syndrome confirmed by a blood test that measures the carboxyhemoglobin level (per cent of haemoglobin in blood that is attached to CO).

**Clinical guidance**

There are a range of resources readily available to support clinical decision making surrounding assessment and management following CO poisoning which are detailed in the table below.

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| Source | Information |
| **Victoria sources:**   * Public information:   Victorian Poisons Information Centre (13 11 26)   * Clinicians Health Channel information:   [Austin Health Clinical Toxicology Guideline Carbon Monoxide Poisoning](http://www.austin.org.au/Assets/Files/Carbon%20Monoxide_Final.pdf) | * 24 hour telephone advice service regarding poisons and poisonings * Immediate clinical advice * CO blood test recommended, ECG and cardiac blood tests (troponin) * Respiratory support information and recommendations for critical care support |
| **Federal sources:**  [Australian Clinical Guidelines for Acute Exposures to Chemical Agents of Health Concern](http://www.health.gov.au/internet/main/publishing.nsf/Content/44DEC8A661513CFDCA257D63001C184F/$File/aust-clinical-guidelines-acute-exposures-chemical-agents.pdf)**[:](http://www.health.gov.au/internet/main/publishing.nsf/Content/44DEC8A661513CFDCA257D63001C184F/$File/aust-clinical-guidelines-acute-exposures-chemical-agents.pdf)**  [A Guide for the Emergency Department Staff](http://www.health.gov.au/internet/main/publishing.nsf/Content/44DEC8A661513CFDCA257D63001C184F/$File/aust-clinical-guidelines-acute-exposures-chemical-agents.pdf) | * CO blood test recommended. * A collection of clinical guidelines regarding exposure to chemical agents. Pages 70-71 outline the assessment and management of CO poisoning. |
| **International sources:**  [US CDC - Clinical Guidance for Carbon Monoxide (CO) Poisoning After a Disaster](https://www.cdc.gov/disasters/co_guidance.html)  [UK Department of Health - Carbon Monoxide Poisoning: Recognise the Symptoms and Tackle the Cause](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260211/Carbon_Monoxide_Letter_2013_FinalforPub.pdf) | * Clinical guidance focused on the assessment and management of CO poisoning in disaster situations. Applicable to non-disaster situations. * Clinical guidance regarding the recognition, assessment and management of CO poisoning. |

## How can Safer Care Victoria assist clinicians?

Ensure that emergency departments and urgent care centres are aware of the available resources, in particular the Victorian Poisons Information Centre and Clinicians Health Channel.