

## **Hyperbaric oxygen therapy helps firefighters**

Carbon monoxide (CO) is a colorless and odorless gas, which is produced by incomplete combustion of carbonaceous material. CO poisoning, to which firefighters are also subjected, can be treated with HBOT.

Carbon monoxide (CO), as stated on the HyperbaricLink website, is a highly toxic gas that is colorless, odorless and tasteless. On inhalation this gas binds to hemoglobin in red blood cells, blocking their capacity to bind with oxygen and carry this life-sustaining gas to cells and tissues. Besides that, CO also damages cells, directly injuring blood vessels and the central nervous system.

## **Accidental and intentional inhalation**

Carbon monoxide, according to the website, is the most common cause of injury and death by poisoning, both accidental and intentional (suicide). Amongst common sources of carbon monoxide are vehicles, generators, tools, cooking equipment, stoves, or furnaces that burn gasoline, wood, coal, natural gas, propane, oil, kerosene, methane, or other fossil fuels.

CO can be fatal inhaled even in small amounts. Serious neurological effects may be delayed days or weeks after acute poisoning, while chronic exposure may cause persistent headaches, dizziness, nausea, and permanent neurological damage.

## **Why HBOT?**

Supplemental oxygen, at normal or hyperbaric pressures, is the primary treatment for carbon monoxide poisoning. Hyperbaric oxygen therapy dissolves additional oxygen in the blood plasma, and has been shown to block all known cellular mechanisms of CO toxicity. HBOT is also used to treat smoke inhalation in firefighters and other fire victims who suffer carbon monoxide poisoning complicated by cyanide poisoning.

Find out more about CO poisoning on [MedScape](#) and read Undersea & Hyperbaric Medical Society's report on HBOT and this type of poisoning on their [website](#).

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References:

[Carbon Monoxide Poisoning](#). Published online on Undersea & Hyperbaric Medical Society website.

Shochat, Guy N. [Carbon Monoxide Toxicity](#). Published online on Medscape . Updated Oct 1, 2014.

[Carbon Monoxide Poisoning](#). Published online on HyperbaricLink.