

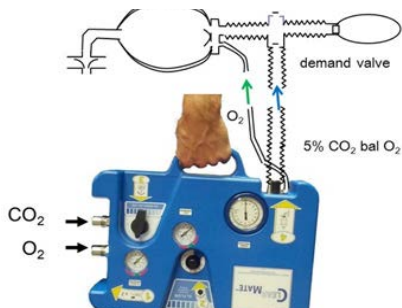
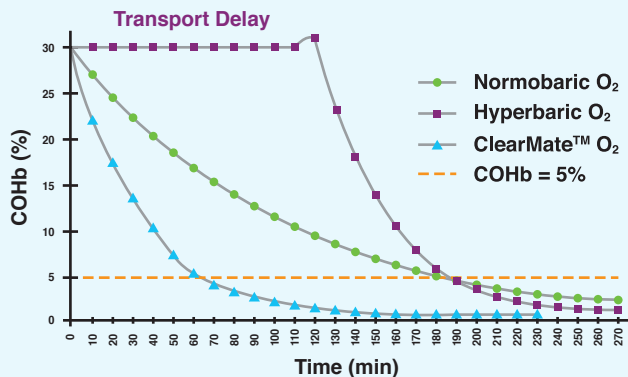
# Carbon Monoxide Treatment

...at the scene!

## Treatment that's 3X AS FAST

The revolutionary, patented ClearMate™ device lets you treat CO victims at the scene, with elimination rates 3x as fast as oxygen, and effectively 3x as fast as hyperbaric oxygen. Since treatment starts much sooner, CO elimination is much faster.

### CO Washout Time



# ClearMate™

## Carbon Monoxide DEADLY, ODOURLESS

Carbon Monoxide (CO) poisoning is the leading cause of poisoning death in industrialized nations, causing an estimated 10,000 deaths in Europe and 3,000 deaths in the US alone each year.

When treating CO poisoning, every second counts. CO's high affinity for hemoglobin displaces oxygen, virtually asphyxiating the brain and other organs.



Improve the chances for survival by treating CO at the scene with ClearMate™. Portable. Lightweight. Rugged. It fits right in your vehicle!

## Specifications



- Weight:** 6.2 kg (13.7 lbs.)
- Dimensions:** 33 cm (13") L x 39 cm (15") W x 7 cm (3") H
- Available Gas Fittings:** NIST, DISS, AFNOR
- Temp-Operating:** 5 °C to -40 °C (41 °F to -104 °F)
- Temp-Storage:** -20 °C to -60 °C (-4 °F to -140 °F)
- Water Ingress:** IPX4
- Vibration & Free Fall:** BS EN 1789:2007 (Medical Vehicles & their Equipment – Road Ambulances)
- Power:** None



**THORNHILL  
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www.thornhillmedical.com | +1 416-597-1325  
210 Dundas St. W., #200, Toronto, ON, Canada M5G 2E8

## The Science HYPERVENTILATION WITH CO<sub>2</sub> CONTROL

ClearMate™ works by eliminating CO through the lungs by rapid ventilation (either spontaneous or via resuscitation bag). Brain blood flow is maintained by infusing carbon dioxide automatically to compensate for that lost during hyperventilation.



1. Fisher JA, Sommer LZ, Rucker J, Vesely A, Lavine A, Greenwald D, Volgyesi G, Fedorko L, Iscoe S (1999) Isocapnic hyperpnea accelerates carbon monoxide elimination. *Am J Respir Crit Care Med* 159:1289-1292
2. Takeuchi A, Vesely A, Rucker J, Sommer LZ, Tesler J, Lavine E, Slutsky AS, Maleck WH, Volgyesi G, Fedorko L, Iscoe S, Fisher JA (2000) A simple 'new' method to accelerate clearance of carbon monoxide. *Am J Respir Crit Care Med* 161:1816-1819