

## MicroCO Carbon Monoxide Monitor

### Cost Effective Tool for the Detection of CO Poisoning

Too often, the diagnosis of CO poisoning has been misdiagnosed because the symptoms are mistaken for the flu or even fatigue. Furthermore, CO has a half life of 4 hours in the body and damage continues long after initial inhalation. Now with the **MicroCO**, firefighters and emergency providers can diagnose carbon monoxide poisoning easily, quickly and inexpensively right on the scene thus preventing possible long term cardiac and/or neurological damage.

Studies have determined that breath carbon monoxide monitors such as the **MicroCO** can provide fast, inexpensive, and noninvasive estimates of the appropriate concentration of blood COHb, facilitating diagnosis and treatment of CO poisoning<sup>1,2</sup>.

The **MicroCO** is the gold standard in CO breath testing. Some of its many features include fast response time, 1ppm resolution, immediate display of CO levels in parts per million (ppm) and percent carboxyhemoglobin (%COHb) and color indicators for a visual presentation of the result.

**MicroCO** measures carbon monoxide exhaled directly from the lungs. Therefore, unlike finger based CO detection, **MicroCO** is not affected by poor perfusion to the extremities which may be induced by shock.



### Features

- Displays Carbon Monoxide in parts per million (ppm) and Percent Carboxyhemoglobin (%COHb)
- Small, lightweight, portable and durable
- Easy to use, clean and maintain (single switch operation, zero warm-up time, simple to calibrate)
- 20 second breath-hold countdown timer
- Color LED indicator for results and Audible warning tone for high CO levels
- Supplied in a sturdy carry case
- Low cost per patient use
- Optional COBRA PC Software allows for report printout and storage

1. Caroline E Fife, Gordon H. Otto. Stephen Koch. Mark Nguyen & Ginger Wilhelm: A Noninvasive Method for Rapid Diagnosis of Carbon Monoxide Poisoning: The Internet Journal of Emergency and Intensive Care Medicine. 201: Volume5, Number 2.  
2. M.J. Jarvis, M. Belcher, C. Vesey, DCS Hutchinson: Low Cost Carbon Monoxide Monitors in Smoking Assessment. Thorax 1986; 41: 886-887.

**MicroCO** is a powerful diagnostic tool for measuring alveolar Carbon Monoxide in parts per million (ppm) concentrations and also calculates the percentage Carboxyhemoglobin (% COHb).

**MicroCO** is small, lightweight and is molded from high impact ABS plastic for durability.

### Simple Test Operation

Switching the unit to CO-PPM or %COHb auto zero's the unit and starts the 20 second breath-hold countdown timer. The patient takes a deep breath, holds for 15 to 20 seconds and when the timer says "0 BLOW", exhales slowly and completely through the disposable cardboard mouthpiece. The results are instantly displayed on the large easy to read display. Green, Amber and Red LEDs will also light to indicate CO level is normal, 7 to 10ppm or 11+ ppm. (COHb normal, 1.12-1.6% or >1.76%)

### Patient Assessment

Smokers will have elevated CO levels. Light smokers typically have 7-10ppm (amber LED) and smokers have 11-20ppm (red LED). Heavy smokers may have >20 ppm (>3.2% COHb). If COHB is >10% may require 100% oxygen and transport.

### Calibration and Maintenance

We recommend calibration every six months. Calibration can be easily and safely accomplished by the end user with our calibration cylinder. The unit should be sent back to the factory to replace the internal battery after approximately 3 years. The sensor may need to be replaced after 2 to 5 years.

## Specifications

Gas Detected & Gas Calculations	Carbon Monoxide ppm % Carboxyhemoglobin
Indicator Levels	Green: 0 to 6 ppm Amber: 7 to 10 ppm Red: 11+ ppm Poison audio alarm: 72ppm
Detection range	0 – 500 ppm
Sensitivity	1ppm
Operation Range	0 – 104 degrees Fahrenheit
Cross-sensitivity	<15% hydrogen cross-sensitivity
Sensor Life	2 – 5 years
Sensor Drift	<2% per month
Display	3 ½ digit custom LCD
Power supply	9 volt battery (30 hour run time) internal battery: 3 years
Weight (Net)	8 ounces
Weight (Packed)	2.5 pounds
Dimensions	6.5" x 2.5" x 1"



## Pricing:

MicroCO Starter Kit: \$1,390  
Shipping for Starter Kit: \$60

### MicroCO Starter Kit Consists of:

MicroCO Unit with Case	MD-MC02	\$1,195
CO Calibration Kit (including gas)	MD-MC15	\$175
100 Cardboard Mouthpieces	MD-3301	\$20

### Supplies

COBRA PC Software	MD-CB1000	\$160
CO Calibration Gas (17 Liter, 20ppm)	MD-MC15	\$95
Cardboard Mouthpieces (Bag of 100)	MD-3301	\$20

Shipping Charge: \$40 for Calibration Kit or Gas; \$20 for MicroCO unit; \$10 for other accessories

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