

Screen for carbon monoxide poisoning instantly to help safeguard your staff with the **ToxCO<sup>®</sup>** range.



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2797



*Saving lives, one breath at a time.*

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## What is Carbon Monoxide (CO) poisoning?

CO poisoning occurs after the inhalation of CO<sup>1</sup>. It is a significantly toxic gas, but being colourless, odourless, tasteless, and non-irritating, it is very difficult for people to detect<sup>2</sup>. CO is a product of incomplete combustion and is often produced in domestic or industrial settings by vehicles and other gasoline-powered tools, such as heaters and cooking equipment. As a result, CO poisoning is the most common type of fatal poisoning in many countries<sup>3</sup>.

CO is and has been the most common cause of both accidental toxic poisoning and death in the United States for over 100 years<sup>4</sup>.

## Diagnosing CO poisoning

One of the significant problems with diagnosing CO poisoning is that it can engender similar symptoms to flu<sup>5</sup>. Symptoms of CO poisoning include:

- Headache
- Nausea
- Vomiting
- Fatigue
- Dizziness

In the UK, the House of Commons All Parliamentary Gas Safety Group recommends providing medical professionals, such as ambulance personnel, on-call GPs and health visitors, with hand held devices so that they can test for exposure there and then<sup>5</sup>.



## Staff safety

The ToxCO® has the capability of not only testing the level of CO on a patient's breath, but can also measure ambient levels of CO, helping to safeguard those entering a potentially dangerous incident.

In 2009, the London Ambulance Service (LAS) undertook a feasibility study into pre-hospital CO monitoring of patients. According to the study, previous incidents demonstrated that on many occasions ambulance personnel had been exposed to 'unidentified situations' of elevated CO concentration in which crews performed clinical assessment and treatment of patients. In the cases reviewed, the attending ambulance personnel neither had the equipment nor the protocols to screen CO as the presenting medical condition<sup>6</sup>.

Following on from the study, LAS have recommended CO devices for staff safety and to aid rapid patient screening.



# ToxCO®

## Instant screening for carbon monoxide poisoning.



**Instantly screen for CO poisoning to help safeguard your staff.**



### Patient breath and atmospheric CO device



For use with adults



To alert staff of high atmospheric CO



For use with unconscious patients

**Ideal for:**

Ambulance services, first responders, GPs and health visitors.

The ToxCO® is an easy to use, non-invasive, breath/ambient CO device with three sampling modes. Breath samples can be taken from patients to screen for CO poisoning and also monitor ambient levels to alert staff of potentially fatal levels of CO in the air.

## Features and Benefits

- Easy to use interface
- Maintenance reminders
- Tag readings
- Antimicrobial technology
- Large touchscreen
- Ambient monitoring
- Face mask breath testing

## Technical Specification

Breath test Concentration range (CO)	0-50%COHb/0-500ppm
Face mask test Concentration range (CO)	0-28%COHb/0-200ppm
Ambient Test Concentration range (CO)	0-500ppm
Display	Full colour touchscreen
Detection principle	Electrochemical sensor
Repeatability	≤±5% difference on consecutive readings
Accuracy	≤±3ppm/10% - whichever is greater*
Power	3 x AA (LR6 or equivalent) - up to 1000 minutes 1 x CR2032 lithium coin cell
T <sub>90</sub> response time	<30 seconds
Operating temperature	0-45°C
Storage/ transport temperature	0-50°C
Operating/storage/transport pressure	Atmospheric ±10% (912-1114mbar)
Operating humidity	15-90% non-condensing
Storage/transport humidity	5-95%
Sensor operating life	2 years
Sensor sensitivity	1ppm
Sensor drift	<5% per annum
Dimensions	Approx. 37 x 77 x 140mm
Weight	Approx. 215g (including batteries)
Materials	Case: polycarbonate/ABS blend with Antimicrobial additive D-piece™: polypropylene SteriBreath™ Eco: paper OneBreath™: polypropylene
H <sub>2</sub> cross interference	≤6%

\*Readings of >500ppm at temperatures between 0-14°C can decrease accuracy to ≤±3ppm/15%.

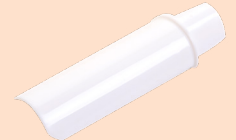
## Consumables

**SteriBreath™ ECO:** The SteriBreath™ Eco mouthpieces come in boxes of 200 mouthpieces, and each one is individually wrapped to ensure optimum infection control. The SteriBreath™ Eco mouthpiece is entirely made from paper and therefore it is 100% recyclable and 100% biodegradable, including its packaging. Even better, all the materials are from sustainable sources.



**Order code:** STERIBREATH-ECO (200 per box)

**D-piece™:** The D-piece™ is used to attach the SteriBreath™ Eco to the device. The D-piece™ incorporates a one-way valve and an infection control filter, which are proven to remove and trap >99% of airborne bacteria<sup>6</sup>. The D-Piece™ should be changed every four weeks, or more often if visibly soiled. An automatic reminder will appear on the screen every 28 days.



**Order code:** D-PIECE-3 (12 per box)

**Face mask sampling system:** This sampling system is single patient use and allows the patient to breathe normally through a face mask in order to produce a breath sample.

**Order code:** ISSA-V-2 (1 sampling kit)

**Small face mask**

**Order code:** EC60-IM-V

**Medium face mask**

**Order code:** EC60-MM-V

**Large face mask**

**Order code:** EC60-AM-V



## References

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6. Public Health England. An Evaluation of Filtration Efficiencies Against Bacterial and Viral Aerosol Challenges Report No. 17/001. London: Public Health England; 2017.



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