

# Smokerlyzer® breath carbon monoxide (CO) monitors



**covita**  
tools for treatment professionals

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*Helping people to stop smoking, one breath at a time*

**www.covita.net | (800) 707-5751**

## What is carbon monoxide (CO)?

CO is a poisonous gas that you cannot smell or see. It is formed by combustion and is produced in car exhaust fumes, faulty gas boilers and tobacco smoke.

- When you inhale smoke from a cigarette, CO is absorbed into your blood through the lungs.
- Oxygen is carried around the body by red blood cells.
- CO binds with haemoglobin in the red blood cells to form carboxyhaemoglobin (COHb), preventing red blood cells from carrying oxygen.
- CO binds with haemoglobin 200 times more readily than oxygen.
- A very heavy smoker may have 10% of their blood cells taken up by CO, depriving the body of oxygen.

## What CO does to your body

### Heart:

To compensate for the shortage of oxygen, the heart has to work harder (beat faster) to get enough oxygen to all parts of the body. The heart itself receives less oxygen, increasing the risk of heart damage.

### Circulation:

COHb causes the blood to thicken and arteries become coated with a thick, fatty substance. This causes circulation problems and high blood pressure, with increased risk of a heart attack and stroke. Hands and feet can become colder as less blood circulates to the extremities.

### Breathing:

The reduced supply of oxygen means you can easily become out of breath when exercising, because there is little oxygen available for the increased demand. A lack of oxygen can also cause tiredness and a lack of concentration.

### Pregnancy:

Oxygen is required by a foetus for healthy growth, but the supply of vital oxygen is reduced when the mother smokes. This increases the risk of low birthweight, birth defects and even Sudden Infant Death Syndrome. A recent clinical study established a direct link between an expectant mother's breath CO level and the amount of COHb in their unborn baby's blood<sup>1</sup>.

## Why monitor CO?

CO testing is a quick, non-invasive and cost-effective means of validating the smoking status of a significant number of clients<sup>2</sup>.

Smoking is the single greatest avoidable risk factor for cancer. In the UK, it is the cause of over a quarter (29%) of all deaths from cancer and has killed an estimated six million people over the last 50 years<sup>3</sup>. Smoking can be attributed to 90% of all deaths from lung cancer, chronic bronchitis and emphysema, showing that if everyone quit the habit, these types of death could be almost completely eradicated<sup>4</sup>.

Carbon monoxide monitors offer tobacco treatment specialists an independent clinical tool which provides valuable evidence in identifying, educating, assessing and treating tobacco-dependent patient<sup>5</sup>.

Monitoring patients' CO levels helps to work out their level of nicotine dependence: the more they smoke, the higher their reading will be, indicating a higher dependence on nicotine.

## What is a Smokerlyzer®?

Smokerlyzers are a range of breath CO monitors and testers which measure the small amounts of CO in exhaled breath. The more you smoke, the higher your CO reading will be.

The reading is given in ppm, which is the number of CO molecules in a million parts of air. The ppm reading can also tell you how much CO is in the blood (the %COHb reading). %COHb is the percentage of red blood cells carrying CO instead of oxygen.

The amount of CO in an unborn baby's blood is referred to as %FCOHb (percentage of foetal carboxyhaemoglobin). Some of the Smokerlyzer range can analyse %FCOHb as an incentive to stop smoking and comply with new NICE guidelines for smoking in pregnancy.



piCO<sup>+</sup> Smokerlyzer<sup>®</sup>

motivation, validation and education



**Ideal for in-depth stop smoking  
advice delivered by:**

- Stop smoking services
- General practice
- Schools
- Pharmacies
- Wellness & Substance Abuse

**5 Year  
Warranty**



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## Features and Benefits

- Results shown instantly in exact ppm and %COHb, making recording and interpreting patients' results quick and easy
- ABS body with added Steritouch antimicrobial additives to kill off harmful bacteria.
- Easy to clean, allowing optimal infection control in every test
- Familiar green, amber and red traffic light system, making CO levels instantly identifiable to patients
- Adult and adolescent profiles to ensure maximum motivation to stop smoking
- Uses D-pieces to filter out 99.9% of airborne bacteria and single-use Steribreath™ mouthpieces for excellent, low cost infection control<sup>2</sup>
- Five-year warranty for absolute peace of mind
- PC interactive with COdata<sup>+</sup> software, free with piCO<sup>+</sup> Smokerizer®

## Technical Specification

|                                      |  |
|--------------------------------------|--|
| Concentration range:                 | 0-100ppm   |
| Display:                             | LCD with 1ppm increments   |
| Detection principle:                 | Electrochemical sensor   |
| Accuracy (repeatability of reading): | < ± 5 %  |
| Hydrogen cross-sensitivity:          | < 12 %   |
| Batteries:                           | 2 × AA (LR6 or equivalent) alkaline batteries                                      |
| Response time:                       | Typically <30 seconds to 90% FSD   |
| Operating temperature range:         | 0-40°C (storage 0-50°C)  |
| Operating humidity:                  | 10-90% (storage 0-95%) non-condensing  |
| Sensor operating life:               | 5 years (5-year warranty including sensor)   |
| Sensor sensitivity:                  | 1ppm   |
| Dimensions:                          | Approx. 45 × 75 × 120mm  |
| Weight:                              | Approx. 200g including batteries   |
| Construction:                        | Body: Polycarbonate/ABS blend with elastomeric overmould<br>D-piece: Polypropylene |

# COdata<sup>+</sup>

- COdata<sup>+</sup> is for use with the piCO<sup>+</sup> and the Micro<sup>+</sup> smokerlyzer. It is a breath carbon monoxide (CO) monitoring software with a fully integrated patient database.
- The user friendly environment will enable any clinician to keep up-to-date records on patients who have given breath carbon monoxide samples.
- COdata<sup>+</sup> is supplied on CD and once installed can be connected to your monitor using a USB cable.
- COdata<sup>+</sup> also allows you to print reports, save pdf reports, email results, and export to Microsoft Excel.





## Consumables

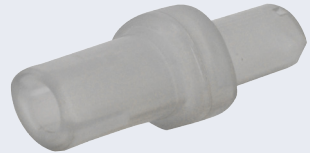
### **NEW SteriBreath™ Mouthpieces:** SteriBreath™

mouthpieces are the most cost effective and compact mouthpieces. They are Individually sealed for optimum infection control. Condensation in tube confirms accurate breath sample.



**Order code: STERIBREATH-MP (250 per box)**

**D-Piece™:** A D-piece is used to attach Flatpak™ mouthpieces or SteriBreath™ to the monitor. The D-piece incorporates a one-way valve and an infection control filter, which are proven to remove and trap >99.9% of airborne bacteria<sup>1</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 (12 month supply) D-PIECE-6 (6 month supply)**

**Infection Control:** Free from alcohol, ensuring the continued performance of your monitor. Products containing alcohol cannot be used on any of the Smokerlyzer range.

**Order Code: WIPES (pack of 50) | Order Code: PURE - Hand Saniizer (8oz or 600 Uses)**

**Calibration Kits & Replacement Cans:** The Smokerlyzer range requires calibration every 6 months with coVita | bedfont calibration gas. Our calibration kits require no fine tuning or technical knowledge.  
**Calibration Kit: CO-CALIB-34-20 (Includes can, tubing, regulator) | CAN ONLY: CO-CAN-34-20**



Contact coVita to learn more about our **Smokerlyzer®**  
range of monitors and accessories.

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## breath analysis is the new blood test

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