



Smokerlyzer[®]

Breath Carbon Monoxide (CO) Monitors

Helping people to quit smoking one breath at a time

NicheMedical
Solutions in Respiratory Care & Diagnosis

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.

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.

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. Smoking is the single greatest avoidable risk factor for lung cancer.

Carbon monoxide monitors offer tobacco treatment specialists an independent clinical tool which provides valuable evidence in identifying, educating, assessing and treating tobacco-dependent patients.

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.

Lung disease is a significant and growing health issue for Australians and it is estimated that more than 7 million Australians aged 35 years and over may be at serious risk of lung disease¹. In fact:

Lung cancer

- More than 9,100 Australians are diagnosed with lung cancer each year².
- More women die of lung cancer than breast cancer² and the number of new lung cancer cases for women has been projected to increase by 38% from 2,891 in 2001 to 4,001 in 2011³.
- The number of new lung cancer cases for men is projected to increase by 17% from 5,384 in 2001 to 6,301 in 2011³.

COPD

- COPD is more common in any year than most common types of cancer, road traffic accidents, heart disease or diabetes⁴.
- Approximately 2.1 million Australians have some form of COPD^{4,5}. By 2050, this figure is expected to more than double to 4.5 million Australians⁴.
- Of those with COPD, 1.2 million Australians^{4,5} have COPD (Stages II – IV), a stage at which symptoms are already affecting their daily lives.
- Nearly 900,000 Australians^{4,5} have a mild form (Stage I) of COPD where symptoms are often ignored. Many of these will go on to develop more severe COPD if they do not quit smoking.

References: 1. Galaxy Research. Galaxy Telephone Omnibus Lung Health Study. September 2009 2. Australian Institute of Health and Welfare, Cancer in Australia: an overview 2008 3. Australian Institute of Health and Welfare, Cancer incidence projections Australia 2002-2011 4. Access Economics. Economic impact of COPD and cost effective solutions. 2008 5. Buist AS, McBurnie MA, Vollmer WM et al. International variation in the prevalence of COPD (The BOLD Study): a population-based prevalence study. *Lancet* 1 September 2007; 370: 741-750



THE NEW MICRO+™

One CO monitor for all your testing needs

Ideal for Clinical Trials and for in-depth stop smoking advice delivered by: Specialist Clinics, Drug and Alcohol Services, Community Health, Smoking in Pregnancy Services

Features and Benefits

- Brand new easy to use interface.
- The most accurate Smokerlyzer® available for Clinics and Clinical trials.
- Results shown instantly in exact ppm and %COHb, making recording and interpreting Patients' results quick and easy.
- Create and store Patient details.
- SteriTouch® technology to kill off harmful bacteria.
- Uses D-Pieces to filter out 99.9% of airborne bacteria.
- Five-year warranty for absolute peace of mind.

ORDER CODE: BEMICROADV



THE NEW PICO™

A firm favourite for motivation, validation and education

Ideal for in-depth stop smoking advice delivered by: Specialist Clinics, Drug and Alcohol Services, Community Health, General Practice, Pharmacies

Features and Benefits

- Brand new easy to use interface.
- Results shown instantly in exact ppm and %COHb, making recording and interpreting Patients' results quick and easy.
- SteriTouch® technology to kill off harmful bacteria
- Uses D-Pieces to filter out 99.9% of airborne bacteria.
- Five-year warranty for absolute peace of mind.

ORDER CODE: BEPICOADV



THE NEW PICOBABY™

Breath Carbon Monoxide (CO) Monitoring for Maternity

Ideal for in-depth stop smoking advice delivered by: Smoking in Pregnancy Services, Maternity Wards, Community Health

Features and Benefits

- Specifically designed for use in Pregnancy.
- Results shown instantly in exact ppm, %COHb and %FCOHb making recording and interpreting Patients' results quick and easy.
- Brand new easy to use interface.
- SteriTouch® technology to kill off harmful bacteria.
- Uses D-Pieces to filter out 99.9% of airborne bacteria.
- Five-year warranty for absolute peace of mind.

ORDER CODE: BEPICOBABY



iCO™ SMOKERLYZER®

The world's first Smokerlyzer® breath CO monitor for your smartphone

Ideal for Personal Use, Health Professionals and Pharmaceutical Companies

Features and Benefits

- A portable CO monitor that can fit in your pocket.
- Connects to app on your phone or tablet.
- Send your results to your doctor, smoking cessation advisor, family member or friend.
- One person use, private, tailored, individual experience.
- Monitors your progress, encouraging you to quit smoking.

ORDER CODE: BEICO-PACK

SPECIFICATION & TECHNICAL DATA

Model	Micro+	piCO	piCObaby
Concentration range:	0–500ppm	0-150ppm	0-150ppm
Display:	Full colour touchscreen	Full colour touchscreen	Full colour touchscreen
Detection principle:	Electrochemical sensor	Electrochemical sensor	Electrochemical sensor
Repeatability:	<3% difference on consecutive readings	<3% difference on consecutive readings	<3% difference on consecutive readings
Hydrogen cross-sensitivity:	<5%	<5%	<5%
Calibration:	Six Monthly	Annually	Annually
Batteries:	3 × AA (LR6 or equivalent) alkaline batteries	3 × AA (LR6 or equivalent) alkaline batteries	3 × AA (LR6 or equivalent) alkaline batteries
T90 Response time:	<17 seconds	<17 seconds	<17 seconds
Operating temperature range:	0-40°C (storage 0-50°C)	0-40°C (storage 0-50°C)	0-40°C (storage 0-50°C)
Operating/Transport/ Storage Pressure	800-1200mbar	800-1200mbar	800-1200mbar
Operating humidity:	10-90% (storage 0-95%) non-condensing	10-90% (storage 0-95%) non-condensing	10-90% (storage 0-95%) non-condensing
Sensor operating life:	5 years (5 year warranty)	5 years (5 year warranty)	5 years (5 year warranty)
Sensor sensitivity:	1ppm	1ppm	1ppm
Sensor Drift:	<10% per annum	<10% per annum	<10% per annum
Dimensions:	Approx. 34 x 75 x 140mm	Approx. 34 x 75 x 140mm	Approx. 34 x 75 x 140mm
Weight:	Approx. 200g (including batteries)	Approx. 200g (including batteries)	Approx. 200g (including batteries)
Monitor Construction:	Case: Polycarbonate/ABS blend SteriTouch anti-Microbial additive D-Piece: Polypropylene	Case: Polycarbonate/ABS blend SteriTouch anti-Microbial additive D-Piece: Polypropylene	Case: Polycarbonate/ABS blend SteriTouch anti-Microbial additive D-Piece: Polypropylene