

Carbon Monoxide (CO)

What and why are you measuring CO?

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What are you measuring?

- The gas that is created from combustion or burning of organic matter.
- It is colourless and odourless

E.G.

- The exhaust from a car
- Smoke from a B.B.Q.
- Smoke from a house/bush fire
- Smoke from a cigarette (*or anything else smoked!*)

How much?

- You are measuring it in Parts Per Million (P.P.M.) in the breath
- 100 P.P.M. in the air can be fatal
- 100 P.P.M in the breath can be serious

Why can inhaling CO be serious?

- This gas binds very strongly with your red cells (Haemoglobin (Hb)) and create COHb—not all gases bind like this.
- If you inhale enough these cells have no more room for Oxygen (O₂) and you might die.
- If *some* of your red cells-but not all-have CO then you will make more red cells to carry O₂.

*This happens in smokers of all ages and commences
after 3 months of smoking*

Too many red cells?

Thickens the blood:-

- Increases likelihood of clotting
- Increases risk of heart attack
- Increases risk of stroke
- Increases risk of vascular disease
- Increases risk of DVT

(very bad risk if on “The pill” as well as smoking)

Is this reversible?

- The day you stop inhaling smoke, you stop binding Hb with CO
- Your blood thins
- Your circulation improves
- Your O₂ carrying capacity improves
- This takes about 3 months

This happens in smokers of all ages and commences after 3 months of Quitting smoking

*Haemoglobin concentration- the best indicator of smoking cessation? Renee Bittoun and David Bryant.
Australian and New Zealand Journal of Medicine
Vol. 15, pp 490. 1985*