




Your CO reading

The CO monitor measures parts per million (ppm) of CO in your breath. From this number it works out the amount of CO in you and your baby's blood.

		
Breath	Blood	Baby
ppm	COHb (%)	FCOHb (%)

60	9.60	18.60
55	8.80	17.05
50	8.00	15.50
45	7.20	13.95
40	6.40	12.40
35	5.60	10.85
30	4.80	9.30
25	4.00	7.75
24	3.84	7.44
23	3.68	7.13
22	3.52	6.82
21	3.36	6.51
20	3.20	6.20
19	3.04	5.89
18	2.88	5.58
17	2.72	5.27
16	2.56	4.96
15	2.40	4.65
14	2.24	4.34
13	2.08	4.03
12	1.92	3.72
11	1.76	3.41
10	1.60	3.10
9	1.44	2.79
8	1.28	2.48
7	1.12	2.17
6	0.96	1.86
5	0.80	1.55
4	0.64	1.24
3	0.48	0.93
2	0.32	0.62
1	0.16	0.31
0	0.00	0.00

Breath ppm

You breathe out only a tiny amount of CO because CO sticks to red blood cells so well.

Blood COHb (%)

The amount of your blood taken over by CO. (like % alcohol in beer)

Haemoglobin (Hb) in your red blood cells carries oxygen around the body. Carboxyhaemoglobin (COHb) is haemoglobin with CO attached to it instead.






Baby FCOHb (%)

This is how much CO is taken up by your baby.

Because your baby's haemoglobin is very good at taking up oxygen it is also good at taking up CO.

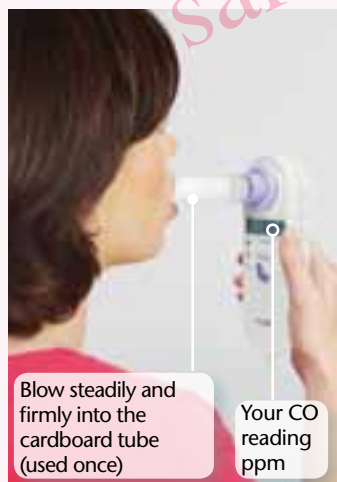
The baby's blood takes up twice as much CO as the mother's.

What the traffic lights mean
CO monitors often use lights to enhance the information.

Mother	Baby
 Heavy smoker	 Danger
 Smoker	 "Safe"
 Non smoker	

If you are smoking and score 6 or less talk to your advisor about your test.

How to do a CO breath test



Blow steadily and firmly into the cardboard tube (used once)

CO reading tracker

Record your reading here

Date	Reading

National stop smoking helplines

NHS PREGNANCY SMOKING HELPLINE 0800 169 9 169
7 days a week, 12pm to 9pm

NHS England 0800 022 4332
www.smokefree.nhs.uk

NHS Scotland 0800 84 84 84
www.canstopsmoking.com

NHS Wales 0800 085 2219

NHS Northern Ireland 0800 85 85 85

Irish Republic 1850 201 203

NHS Asian Tobacco Helplines 0800 169 followed by

0881	0882	0883	0884	0885
Urdu	Punjabi	Hindi	Gujerati	Bengali

Other organisations

British Heart Foundation www.bhf.org.uk

Baby CO Monitors www.micromedical.co.uk

No Smoking Day www.nosmokingday.org.uk



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Thanks to Margot Richardson, Nyvej Partnership, Jeff Keighley and Micro Medical (CareFusion).

Carbon Monoxide Smoking and Your Baby



What is Carbon Monoxide?

What does it do to your baby?

What is a Carbon Monoxide reading?

What is Carbon Monoxide?

Carbon Monoxide (CO) is a poisonous gas that you can't see or smell. It is made up of one atom of carbon and one atom of oxygen. This is not the same as the gas called Carbon Dioxide (CO₂) which is part of the air we breathe.

Where is CO found?

When materials containing carbon burn, such as cigarettes, they give off CO. If you inhale your own smoke, or other people's, you breathe in CO.

CO in your blood stream

- When you breathe in smoke the CO is absorbed in your lungs and picked up by your red blood cells.
- It is then carried around your body and produces a thick fatty plaque that can cause heart disease, stroke and bad circulation. It also means the blood stream carries less oxygen.

Adult

Red blood cells stick to CO
200x more than oxygen.

The Placenta

- The mother and unborn baby (fetus) are separate. Their blood does not mix. The placenta links them.
- It is a dense smooth blob of tiny blood vessels that sticks to the inside of the womb. It gives the fetus all it needs to grow, such as food and oxygen from the mother's blood.
- CO damages the placenta when the fatty plaque blocks the tiny vessels. This means it does not grow as big and does not carry as much oxygen and nutrition.

Smaller placenta = weaker and smaller baby

Fetal blood is different to mum's

- In the fetus, the molecule on red blood cells that oxygen sticks to (haemoglobin) is different.
- More oxygen can stick to it to make it grow. Unfortunately this means that CO sticks to it even better!

Baby

Fetal red blood cells stick to CO
2x more than adult's.

Effects of smoking on your baby

Pregnancy

- More chance of miscarriage: a weakened placenta does not stick to the inside of the womb as well as it should.

Birth

- Still-birth is more common.
- Lower birth weight, but this does not mean the baby is easier to push out. Baby is also more likely to be premature (born early).
- Longer stay in hospital. Baby more likely to be on special care unit.

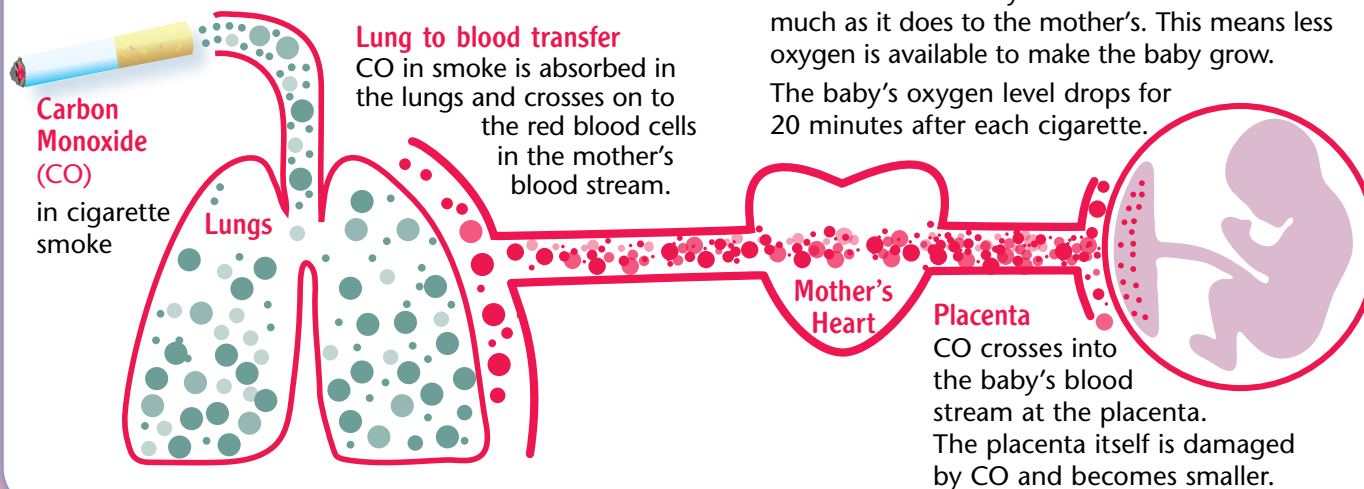
Childhood

- Cot death 4x higher even in "light" smokers.
- Higher rates of heart disease and asthma, and your child is more at risk of getting infections such as inflammation of the middle ear.

Long term

- Children whose parent smokes are more likely to become a smoker as they get older.
- Obesity and lower IQ are more likely.

How Carbon Monoxide gets into your baby



Baby's blood carries twice the load

CO sticks to the baby's red blood cells twice as much as it does to the mother's. This means less oxygen is available to make the baby grow. The baby's oxygen level drops for 20 minutes after each cigarette.

The good news about stopping

When you stop smoking your CO levels drop very quickly. In 24 hours, your CO levels go back to the level of a non-smoker.

- ✓ Stopping does not harm the baby.
- ✓ The baby will feel the effects straight away.
- ✓ You'll feel the benefits too.

How to stop

- ✓ Nicotine Replacement Therapy (NRT) can double your chances of quitting. **It is free.**
- ✓ With NRT and your local NHS Stop Smoking Service you are 4x more likely to quit than on your own. **Give it a go!**