

# Carbon monoxide testing in pregnancy

Information for women and their families

## Go Smoke Free

For information about quitting smoking, please contact your midwife or the Smoking in Pregnancy Specialist Midwife on 07815 70 57 37.

You can also call OneYOU Kent Stop Smoking Services on Freephone 0300 12 31 22 0

## What is Carbon Monoxide?

Carbon Monoxide (CO) is a colourless, odourless, and tasteless poisonous gas. It can be found in cigarette smoke, faulty gas boilers, and car exhaust fumes. However, smoking is the most common reason for high CO readings.

## How does Carbon Monoxide affect my baby?

When you smoke a cigarette (manufactured cigarettes or roll-ups) CO replaces some of the oxygen going into your lungs. This reduces how much oxygen gets into your bloodstream and therefore your baby.

**CO is dangerous because it deprives your baby of oxygen. This can cause your placenta not to work as efficiently and your baby's growth and development to slow. CO can also increase the risk of miscarriage, stillbirth, and Sudden Infant Death Syndrome (SIDS).**

Because of the risks involved to both mother and baby, all women will have their CO monitored throughout their pregnancy.



### **How will CO affect my baby's movements?**

An increase in CO levels reduces the levels of oxygen that the baby can receive. This could mean that the baby's activity slows down in order to save energy.

### **How does the test work?**

- You blow into a hand-held machine called a CO monitor. This machine measures the level of CO in your body and displays how much is getting to your baby.
- The more CO you have inhaled, the higher your CO reading will be.
- CO test results are measured in CO ppm, which means the number of CO molecules in one million parts of air.
- Women (smokers and non smokers) with a CO test reading of 4ppm or higher will be referred to the Smoking in Pregnancy Midwife and the NHS Stop Smoking Services.

### **Does this test check for second hand smoke?**

Yes. This test can also show whether you are inhaling harmful amounts of second-hand smoke. We advise that you do not allow anyone to smoke anywhere in your home. Invisible chemicals from cigarettes can travel from room to room, even with the door closed. Opening windows and doors cannot prevent this.

### **I'm a non-smoker, why is my reading high?**

If your CO reading is raised and you do not smoke, this could be due to a faulty appliance. You should call the Health and Safety Executive Gas Safety Line on 0800 30 03 63.

A raised reading can also indicate passive smoking, a high level of exposure to car fumes, or you may be lactose intolerant.

A referral can also be sent to OneYOU Kent. They will be more than happy to help you investigate why your reading may be raised.

## Carbon Monoxide Chart

Having a reading in this zone indicates you may well be a **regular smoker** with higher levels of CO in your blood. Do not despair. Help is at hand. Your stop smoking advisor can help you to give up smoking and reduce your reading down into the target 'Green Zone'.

Having a reading in this zone would indicate a **light smoker** or a **non-smoker** breathing in poor air quality or passive smoke inhalation. Your stop smoking advisor will be able to advise on the best course of action to reduce this reading down to the target 'Green Zone'.

**This is where you really need to be.**

It means you have less than 1% Carbon Monoxide (CO) in your blood. Most people have a small amount of CO in their breath, this is due to the air quality around you.

Adolescent/ Maternity	
COppm	%FCOHb
20+	5.66
19	5.38
18	5.09
17	4.81
16	4.53
15	4.25
14	3.96
13	3.68
12	3.40
11	3.11
10	2.83
09	2.55
08	2.26
07	1.98
06	1.70
05	1.42
04	1.13
03	0.85
02	0.57
01	0.28

## What help is available to help me quit smoking?

As smoking is the most common cause of high CO readings, quitting smoking is the best way for you to make sure that you and your baby are free from the harmful effects of this poisonous gas.

To help you quit we will offer you a referral to OneYOU Kent. They will discuss with you the support available to help you to stop smoking. This includes:

- Nicotine Replacement Therapy (NRT) patches, gum, and sprays.
- Behaviour support and change (referring you to the NHS Stop Smoking Services).
- Vaping/e-cigarettes (95% safer than smoking cigarettes).

We know how hard quitting smoking can be and we are here to support you. There is no harm in trying and you really will be making such a difference to the health of your baby as well as yourself.

## Further resources

- **OneYOU: Smokefree Kent**  
Web: [www.oneyoukent.org.uk](http://www.oneyoukent.org.uk)  
Telephone: 0300 12 31 24 0
- **The Lullaby Trust**  
Web: [www.lullabytrust.org.uk](http://www.lullabytrust.org.uk)
- **Tommy's Charity: Carbon Monoxide Testing**  
Web: [www.tommys.org/pregnancy-information/im-pregnant/smoking-and-pregnancy/carbon-monoxide-testing](http://www.tommys.org/pregnancy-information/im-pregnant/smoking-and-pregnancy/carbon-monoxide-testing)
- **Smoking in Pregnancy Challenge Group**  
Web: [smokefreeaction.org.uk/smokefree-nhs/smoking-in-pregnancy-challenge-group/](http://smokefreeaction.org.uk/smokefree-nhs/smoking-in-pregnancy-challenge-group/)

**This leaflet has been produced with and for women and their families**

If you would like this information in **another language, audio, Braille, Easy Read, or large print** please ask a member of staff. You can ask someone to contact us on your behalf.

**Any complaints, comments, concerns, or compliments** please speak to your doctor or nurse, or contact the Patient Advice and Liaison Service (PALS) on 01227 78 31 45, or email [ekh-tr.pals@nhs.net](mailto:ekh-tr.pals@nhs.net)

**Patients should not bring in large sums of money or valuables into hospital.** Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property had been handed in to Trust staff for safe-keeping.

**Further patient leaflets** are available via the East Kent Hospitals web site [www.ekhuft.nhs.uk/patientinformation](http://www.ekhuft.nhs.uk/patientinformation)