

Medical Carbon Dioxide

Read all of this leaflet carefully before you start to use this medicine.

- Keep this leaflet. You may need to read it again.
- If you have further questions, please ask your doctor or your pharmacist.
- This medicine has been prescribed for you personally and you should not pass it on to others. It may harm them, even if their symptoms are the same as yours.

In this leaflet:

1. What Medical Carbon Dioxide is and what it is used for.
2. Before you use Medical Carbon Dioxide
3. How to use Medical Carbon Dioxide
4. Possible side effects.
5. Storing Medical Carbon Dioxide

The name of your medicine is Medical Carbon Dioxide. Medical Carbon Dioxide is supplied as a pure gas containing only Carbon Dioxide. It does not contain any other ingredients.

1. What is Medical Carbon Dioxide and what it is used for.

Medical Carbon Dioxide is an inhalation gas (a gas that is breathed in). It is colourless and odourless. It is supplied as a liquefied gas in a cylinder with a valve to control the outflow of the gas.

It controls how fast and how deeply you breathe in air which contains the oxygen you need for your body tissues to work properly. These tissues produce carbon dioxide when they work and this is absorbed into your blood. The amount of carbon dioxide in your blood depends on how much work your body tissues are doing and the level of carbon dioxide in your blood affects how much oxygen is available in your blood for your body tissues to take up so they can work. The more your body tissues work, the more carbon dioxide there is in the blood, and the more oxygen there is available in the blood for take up by the body tissues so they can work more quickly.

It is used with anaesthetics. This is to make sure your blood levels of carbon dioxide are satisfactory so that you breathe easily during surgery. Medical Carbon Dioxide also makes you breathe in deeply so that the anaesthetic is rapidly effective and stays effective throughout the surgery.

It can be used to stimulate your breathing if you stop breathing or if your breathing has been obstructed in some way, but is now cleared. Medical Carbon Dioxide can also be used to calm your breathing if you are overbreathing (hyperventilation).

It is sometimes be used in clinical investigations including procedures to expand an organ inside your body so that it can be examined internally.

2. Before you use Medical Carbon Dioxide

If you cannot breathe properly because your airways are blocked, if you are being resuscitated, if your body fluids are abnormally acidic or if you are pregnant you should not use Medical Carbon Dioxide. Where possible, please consult your doctor.

High levels of carbon dioxide breathed in can interact with anaesthetics and cause abnormal heart rhythms. Carbon dioxide also interacts with adrenergic substances such as adrenaline and can affect how you absorb many drugs into your body including drugs to control your blood pressure and drugs affecting nerve signal transmission in your body (neuromuscular blocking agents).

Please tell your doctor about any medicines you are taking before starting Medical Carbon Dioxide treatment.

Pregnancy

Ask your doctor or pharmacist for advice before taking any medicine.

Do not use Medical Carbon Dioxide if you are pregnant.

Breast-feeding

Ask your doctor or pharmacist for advice before taking any medicine.

Medical Carbon Dioxide can be used if you are breast-feeding.

Driving and using machines.

Do not drive or operate heavy machinery whilst taking Medical Carbon Dioxide.

Using other medicines.

Interactions with other medicines are unlikely when Medical Carbon Dioxide is used as directed.

Please inform your doctor or pharmacist if you are taking, or have recently taken any other medicine – even those not prescribed.

3. How to use Medical Carbon Dioxide

Always follow the instructions given to you by your doctor. Do not stop treatment or change your treatment without consulting your doctor first.

You will normally use Medical Carbon Dioxide by breathing the gas in through a face mask. The face mask is connected to the Medical Carbon Dioxide via specialised equipment that you will be supplied with.

Only use the equipment supplied to you for use with your Medical Carbon Dioxide

All equipment used with the Medical Carbon Dioxide should be kept clean and dry. Do not use oil or grease on any equipment that is used with Medical Carbon Dioxide.

Your doctor or nurse will decide how much Medical Carbon Dioxide you need.

You should only breathe in 5% or less Medical Carbon Dioxide (except for certain clinical investigations). For expanding organs of the body 100% gas may be used.

Your doctor will tell you how long your treatment with Medical Carbon Dioxide will last.

If you forgot to use Medical Carbon Dioxide

Take your Medical Carbon Dioxide as soon as you remember, do not take a double dose to make up for the forgotten treatment.

If you use more Medical Carbon Dioxide than you should:

If you may have used more Medical Carbon Dioxide than you should (more than 6%) you will suffer from headaches, confusion, high blood pressure, irregular heart beat, rapid and heavy breathing. At higher levels of Medical Carbon Dioxide (more than 8-10%) you will be dizzy and become unconscious. At very high levels (more than 30%) in addition to unconsciousness you will have extremely high blood pressure, very low heart rate and ECG changes. Fits may also occur.

When you stop breathing in Medical Carbon Dioxide all these effects are reversed.

4. Possible side effects

Like all medicines Medical Carbon Dioxide can have side effects.

If you take 5% Medical Carbon Dioxide, your breathing will become more rapid and you will breathe more deeply. Your skin will become pink and warm. You may sweat and feel uncomfortable. After taking carbon dioxide for a long time, when you start breathing air again you may feel tired, develop a headache, go pale and feel sick or vomit.

Patients undergoing laparoscopy where carbon dioxide is used as the gas to expand the organs sometimes have abnormal heart rhythms. Heart failure due to gas bubbles in the blood has been reported.

If you notice any side effects not mentioned in this leaflet please inform your doctor or your pharmacist.

5. Storage of Medical Carbon Dioxide

The colour of Medical Carbon Dioxide cylinders in the UK is in a period of change. The colour coding of the shoulder of Carbon Dioxide is French grey. The body of the cylinder will be either French grey or white.

The aim is to complete a period of change over from the French grey body to the white bodied cylinder. The shoulder colour of the cylinder will remain as French grey. This period of change will be completed by January 1st 2026.

- Keep Medical Carbon Dioxide out of the reach and sight of children.
- Do not smoke where Medical Carbon Dioxide is stored.

Medical Carbon Dioxide containers should be stored:

- in a well ventilated place,
- under cover
- kept clean and dry.
- where they will not be exposed to extremes of temperature.

Return any used cylinders to Air Liquide.

Use by date

Do not use Medical Carbon Dioxide after the expiry date on the label.

The Marketing Authorisation Holder for Medical Carbon Dioxide is Air Liquide Limited, Station Road, Coleshill, Birmingham, West Midlands, B46 1JY

Medical Carbon Dioxide is manufactured by Air Liquide in the UK.

This leaflet was last approved on 30th April 2012