

Package leaflet: Information to the user

Medicinsk Lustgas Air Liquide 100%, medicinal gas, liquefied

Nitrous oxide 100% (medicinal laughing gas)

Read all of this leaflet carefully before you start using this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, pharmacist or nurse.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

In this leaflet:

1. What Medicinsk Lustgas Air Liquide is and what it is used for
2. What you need to know before you use Medicinsk Lustgas Air Liquide
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4. Possible side effects
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1. What Medicinsk Lustgas Air Liquide is and what it is used for

Medicinsk Lustgas Air Liquide is a gas (nitrous oxide – laughing gas) which is used by inhalation. It has a slightly sweet taste and smell and is colourless. It comes in a gas cylinder that has a valve to control gas outflow. The gas cylinder contains pure laughing gas under such high pressure that the gas is liquefied.

The effects of Medicinsk Lustgas Air Liquide

Laughing gas produces anaesthetic effects – (sleeping effects) – and when you inhale it, you will become relaxed and tired, which may make you fall asleep. Laughing gas also has painkilling properties. Laughing gas acts by affecting a number of the chemical substances (“neurotransmitters”) that control such things as wakefulness and experience of pain.

What is Medicinsk Lustgas Air Liquide gas used for?

Laughing gas is used as part of a surgical anaesthetic, or as a painkilling/calming agent when pain relief that has rapid onset and wears off quickly is desired.

2. What you need to know before you use Medicinsk Lustgas Air Liquide

Do not use Medicinsk Lustgas Air Liquide:

Before you use laughing gas, you should inform your doctor if you have the following signs/symptoms/conditions:

- If your condition requires administration of 100% oxygen.
- Hypersensitivity of the active substance
- When Medicinsk Lustgas Air Liquide is inhaled, gas bubbles (gas emboli) and gas-filled cavities may expand and cause serious harm. Therefore Medicinsk Lustgas Air Liquide must not be used if you have:
 - Pneumothorax (*accumulation of air between the lung and the chest wall or heart and heart sac*),
 - Severe emphysema (*disease of the lung alveoli resulting in respiratory problems*),
 - Gas embolism (*formation of air bubbles in the bloodstream*), Performed deep sea diving with risk of decompression sickness,
 - Head injury or injuries in face or jaw,

- Had treatment with heart lung machine or coronary by pass without heart lung machine,
- Have received an injection of ophthalmic gas during eye surgery in the last three months, as there is a risk of blindness if the pressure in the eye gets too high. Your doctor will ensure that the pressure does not harm you.
- Presence of air in the abdomen which causes severe abdominal discomfort,
- Had air encephalography (*X-ray of the brain*),
- Middle ear, inner ear and sinus surgery,
- Had an epidural anaesthesia and air has been injected,

In addition Medicinsk Lustgas Air Liquide must not be used if you have:

- If you suffer from heart failure or heart dysfunction (e.g. after heart surgery).
- Signs of confusion or other sign showing an increased pressure in the brain.
- Facial injury where use of a face mask may present difficulties or risks.
- A decreased level of consciousness or impaired ability to cooperate and follow instructions due to the risk that further sedation from the nitrous oxide may affect natural protective reflexes.
- Untreated vitamin B12 or folic acid deficiency, or diagnosed disorder of the metabolism of these vitamins.

Warnings and precautions

Also inform your doctor if you have the following illnesses/symptoms/conditions.

- **Vitamin deficiency**
If you are *suspected* of having vitamin B₁₂ deficiency or folic acid deficiency, since use of nitrous oxide can worsen the symptoms caused by vitamin B₁₂ and folic acid deficiency.
- **Ear discomfort**
Such as ear inflammation, since laughing gas may increase the pressure in the middle ear.
- **Addiction**

If you have ~~and~~/or have had a drug abuse

Your doctor will decide whether laughing gas is a suitable treatment for you.

Other medicines and Medicinsk Lustgas Air Liquide

Please tell your doctor or pharmacist if you are taking or have recently taken any other medicines.

Tell your doctor if you:

Have received an injection of ophthalmic gas during eye surgery in the last three months, as there is a risk of blindness if the pressure in the eye gets too high.

Are taking medicines acting on the central nervous system (such as morphine derivatives, benzodiazepines and other psychotropic medicinal products); It may increase hypnotic effects . In case of association with this kind of medicinal product, monitoring will be strengthened.

Please tell your doctor or pharmacist if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

Pregnancy, breast-feeding and fertility

Laughing gas may be used during pregnancy and when giving birth. When used close to delivery your baby should be observed for any adverse effects.

Laughing gas may be used during breast-feeding.

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor for advice before taking this medicine

Driving and using machines

Laughing gas has an intoxicating effect. For safety reasons, you should therefore avoid driving, using machines or carrying out complicated tasks until you are fully recovered.

3. How to use Medicinsk Lustgas Air Liquide

Laughing gas is always administered in the presence of medical staff, who will determine the dose you receive. You should always follow the directions of medical staff when you inhale the gas.

Laughing gas is always given in a gas mixture that contains at least 21% oxygen to avoid the risk of oxygen deficiency (hypoxia). Laughing gas is normally used in doses (concentrations) that vary between 35 and 75 volume percent of the inhaled gas.

You normally inhale laughing gas through a face mask or nasal mask. You either inhale it yourself (“spontaneous respiration”) or you are helped to breathe by a respirator/ventilator, as in anaesthesia.

If you use more Medicinsk Lustgas Air Liquide than you should

You should always follow the directions of medical staff when you inhale Medicinsk Lustgas Air Liquide. If you find that you have taken too much laughing gas and are affected by shortness of breath (too little oxygen in your blood), tell the personnel and stop using laughing gas. Depending on the circumstances you may have to breathe ordinary fresh air, or extra oxygen may be administered. The oxygen content of your blood will be continually monitored with the aid of a “pulsoximeter”.

Safety precautions

- Smoking and naked flames are absolutely forbidden in rooms in which laughing gas treatment is being given.
- Medicinsk Lustgas Air Liquide (medicinal laughing gas) is intended for medicinal use only.

4. Possible side effects

Like all medicines, laughing gas can cause side effects, although not everybody gets them.

Contact your doctor or go to nearest hospital immediately if you develop an infection with symptoms such as fever coupled with a severely deteriorated general state of health or a fever with local infection symptoms such as sore throat/mouth or difficulty urinating (agranulocytosis).

The following undesirable effects may occur during treatment and usually disappear within minutes of discontinuation of inhalation of the mixture:

Common ($\geq 1/100$ to $< 1/10$)

Nausea and vomiting.

Uncommon ($\geq 1/1,000$ to $< 1/100$)

Paraesthesia (*tingling*), deepening of sedation (*drowsiness*), hallucinations, anxiety, agitation, euphoria, dreams.

Not known: (cannot be estimated from the available data)

dizziness, headache, generalised seizures, increased intracranial pressure, severe visual impairment, ear pain, middle ear disorders, tympanic rupture, respiratory depression in the neonates during delivery, disorientation, vitamin B12 deficiency, addiction.

Neurological disorders such as myeloneuropathies (*spinal cord diseases*).

Megaloblastic anaemia with leukopenia (*a decrease in the number of red blood cells, accompanied by a decrease in the number of white blood cells*).

Pancytopenia (severe reduction in blood cells which can cause weakness, bruising or make infections more likely).

Reporting of side effects

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via [the national reporting system listed in Appendix V*](#). By reporting side effects you can help provide more information on the safety of this medicine.

5. How to store Medicinsk Lustgas Air Liquide

This medicinal product does not require any special storage conditions other than those applying to gas containers and gas under pressure (see below).

Keep this medicine out of the sight and reach of children.

Keep the cylinder in a locked storage reserved for medicinal gases.

Use only in well-ventilated areas.

Should not be exposed to strong heat. Keep away from combustible material.

If at risk of fire – move to a safe place. No smoking.

Handle with care. Make sure the cylinder is not knocked or dropped. Keep the cylinder clean, dry and free of oil and grease.

Store and transport upright with valves closed and, where these are present, with the protective cap and cover in place.

Do not use Medicinsk Lustgas Air Liquide after the expiry date which is stated on the cylinder after EXP. The expiry date refers to the last day of that month

6. Contents of the pack and other information

What Medicinsk Lustgas Air Liquide contains

- The active substance is nitrous oxide (laughing gas) 100% (chemical symbol N₂O).
- Medicinsk Lustgas Air Liquide contains no other ingredients.

What Medicinsk Lustgas Air Liquide looks like and contents of the pack

The shoulder of the gas cylinder is marked in blue (nitrous oxide). The body of the gas cylinder is white (medicinal gas).

Pack sizes in litres	2.5	4	5	10	40	50	20x20	8x40	12x50
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Not all pack sizes may be marketed.

Marketing Authorisation Holder

<To be completed nationally>

Manufacturer

Air Liquide Medical
Tolhuisstraat 46
2627 Schelle
Belgium

This medicinal product is authorised in the Member States of the EEA under the following names:

Sweden – Medicinsk Lustgas Air Liquide 100%, medicinsk gas, flytande

Denmark – Medicinsk Dinitrogenoxid "Air Liquide" 100%, medicinsk gas, flydende

Norway - Medisinsk Lystgass Air Liquide, medisinsk gass, flytende

This leaflet was last revised in 2025-10-22

The following information is intended for medical or healthcare professionals only:

Repeated administration or exposure to nitrous oxide may lead to addiction. Caution should be exercised in healthcare professionals with occupational exposure to nitrous oxide

Safety directions

- Medicinsk Lustgas Air Liquide should be used only in spaces that are well ventilated and/or where special equipment is available which deals with excess gas/exhaled laughing gas. This is in order to avoid excessive concentrations of laughing gas in ambient air, which might affect personnel or other people nearby. There are national guidelines for the concentration of laughing gas that should not be exceeded ("hygienic limit values").
- The gas cylinder of Medicinsk Lustgas Air Liquide should always be kept upright, with the valve upwards. Although laughing gas is a gas when it leaves the cylinder, it takes liquid form inside the cylinder because of pressure. If the cylinder is used lying on its side, liquid may leak out and cause injuries such as frostbite.
- The valve should be opened slowly and carefully to avoid releasing liquefied laughing gas.
- Turn off the equipment in the event of fire or when not in use.
- During use, the cylinder should be fixed in a suitable supporting device.
- The cylinder valve should be closed when a small quantity of gas remains in the cylinder. It is important to leave a small amount of pressure in the cylinder to avoid the entrance of contaminants.
- After use, the cylinder valve should be closed by ordinary hand pressure. Depressurise the regulator or connector.