

Entonox use in Endoscopic Procedures

This leaflet aims to answer your questions about taking Entonox for pain control and reducing anxiety during endoscopic procedures.

What is Entonox?

Entonox is sometimes referred to as 'laughing gas' or 'gas and air'. It has been used in the NHS since 1965 for relieving pain and anxiety. Entonox is a 50/50% mixture of nitrous oxide and oxygen gas and is commonly used in childbirth and by the ambulance service for the relief of pain. Entonox works very quickly, and its effects are felt almost immediately after inhalation, providing effective pain relief and a sense of relaxation to patients without impeding their conscious level.

Entonox is an effective alternative to intravenous medications (including sedation and pain relief), which are usually offered to patients attending for endoscopic procedures. It is most commonly offered for procedures examining the bowel, such as colonoscopy and flexible sigmoidoscopy, and can also be used immediately before an examination of the upper digestive tract, such as a gastroscopy/TNE, when it can reduce patient anxiety and help the scope pass more easily into the oesophagus (food pipe).

What are the benefits of using Entonox?

Entonox is self-administered via a mouthpiece meaning you are in full control of your own pain relief requirements. The effects of the Entonox will be reached/felt after approximately six to eight inhalations. After stopping inhalation, the effects of the gas wear off within eight minutes. As a result, you will not need to be accompanied home after your procedure and can usually leave the department within 30 minutes of completion of your procedure. You will ALWAYS need to be accompanied from the department by a responsible adult however if you have received an injection of sedative drugs. You can drive after using Entonox, but not for 24 hours if painkilling/sedative medications have been administered.

How do I use Entonox?

Following your admission by the nurse for your endoscopy procedure you will be shown the mouthpiece and instructed on how to use the Entonox effectively. The gas only flows when you breathe in. Deep, slow breaths yield the best pain relief.

When the endoscopist is ready to start your procedure the nurse will instruct you to take five to six breaths of Entonox before your procedure starts. This will give the Entonox time to take full effect and for you to feel comfortable with the technique of using the gas. You do not need to use it continuously. You can inhale it as needed, specifically during moments of cramping or discomfort, however, this will not be possible for gastroscopy.

If you find the Entonox gas provides unsatisfactory pain relief then the endoscopist will assess your needs and potentially offer an alternative medication, usually intravenous painkiller/sedation, depending on your discharge arrangements on the day. If you do not have an appropriate escort from the department, your procedure may need to be rebooked on a different day.

What happens when I stop using Entonox?

The Entonox will take about eight minutes to disappear completely from the body. You will be safe to start driving 30 minutes following Entonox use, provided a healthcare professional has judged you competent and you feel able to drive.

Are there any risks?

There are no serious risks and very few side effects from inhaling Entonox gas. Occasionally you may feel some light headedness, some tingling in the fingers and face and a little sickness or dizziness. This usually happens if you are breathing the gas in and out too quickly. This is called 'hyperventilating'. If this does occur, the nurse will tell you to slow down your breathing and these side effects will stop.

Entonox is not always suitable for everyone and there are conditions / illnesses where Entonox cannot be used.

These are:-

- any ear disorder or previous ear surgery
- eye surgery: recent intra-ocular gas injection
- any facial injuries
- drunk or intoxicated patients
- patients with a recent head injury
- within 72 hours of diving using oxygen tanks
- patients who have previously suffered decompression sickness (the bends from deep sea diving)
- patients who are heavily sedated or unconscious
- bullous emphysema
- acute asthma attack
- severe COPD (oxygen levels which are normally below 94%)
- previous chest injuries
- current or residual pneumothorax (air in-between the lung membranes)
- abdominal distention / bowel obstruction
- the first 16 weeks of pregnancy
- patients with laryngectomy (throat surgery)
- patients who are taking Methotrexate

Entonox may be used with caution in the following cases:-

- COPD
- vitamin B12 deficiency
- sickle cell anaemia
- patients who are taking Amiodarone, Bleomycin, Nitrofurantoin

A full assessment of your suitability for Entonox will be done upon admission.

Benefits of choosing Entonox for endoscopic procedures

As there are no lasting effects from breathing Entonox gas, within 30 minutes you will be able to drive home and carry on with your normal day without having anyone to look after you, unless otherwise advised by the Endoscopy Unit due to the nature of the procedure undertaken.

Contact us

If you have any questions or concerns about using Entonox for your procedure, please contact us:

For appointments at St George's Hospital please call:

The Endoscopy Unit on 020 8725 1913 Monday to Friday 8.30am to 3pm.

For appointments at Queen Mary's Hospital please call:

The Day Case Unit on 020 8487 6466 Monday to Friday 9am to 5pm.

We are sorry that you may experience a delay when contacting us by telephone. Our team manages more than 300 patient bookings each week and our phone lines can be extremely busy. At peak times, you may wait up to 40 minutes for your call to be answered.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.stgeorges.nhs.uk

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you advice and information when you have comments or concerns about our services or care. You can contact the PALS team on the advisory telephone line Monday, Tuesday, Thursday and Friday from 2pm to 5pm.

A Walk-in service is available:

Monday, Tuesday and Thursday between 10am and 4pm
Friday between 10am and 2pm.

Please contact PALS in advance to check if there are any changes to opening times.
The Walk-in and Advisory telephone services are closed on Wednesdays.

PALS is based within the hospital in the ground floor main corridor between Grosvenor and Lanesborough Wing.

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS UK

NHS UK provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health. **Web:** www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones. **Tel:** 111

AccessAble

You can download accessibility guides for all our services by searching 'St George's Hospital' on the AccessAble website (www.accessable.co.uk).

The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



Scan here for a map on how to find the Endoscopy Unit at St George's Hospital.



Scan here for a digital copy of this leaflet.



Reference: GAS_ENTO_04 **Published:** October 2026 **Review date:** October 2028