

Using Entonox[®] during your lithotripsy procedure

This leaflet explains more about the use of Entonox[®] gas for pain relief during your lithotripsy procedure, including the benefits, risks and any alternatives. If you have any further questions, please speak to a doctor or nurse caring for you.

What is Entonox[®]?

Entonox[®] is a mixture of 50% oxygen and 50% nitrous oxide, also known as 'gas and air'. It is often used to treat pain during childbirth. It is also used widely by the ambulance service and in hospitals for a variety of procedures and conditions.

The exact way in which Entonox[®] works to provide pain relief is not fully understood. However it is thought to work in the brain and the spinal cord, stopping the pain from being felt.

Why should I have Entonox[®] for my procedure?

Entonox[®] is quick to act, and will usually begin to work within two minutes (although you may feel some effect after your first few breaths). Also, its effects wear off quickly once you stop breathing it in, so you will not feel any after effects. One of the most popular advantages of this method of pain relief is that you are in control of how much you have.

What are the risks?

There is minimal risk involved with the administration of Entonox[®]. The main concern is that the gas may become trapped in the body – this is only a problem if you have specific medical conditions. The nurses will carefully assess you before you have Entonox[®] and will not give it if there is any risk that this may happen.

What are the possible side effects of Entonox[®]?

Dizziness and drowsiness

Entonox[®] can cause dizziness, however this usually improves once you stop breathing the gas. If you continue to breathe in Entonox[®] at this point, you may become very sleepy, and would automatically drop the mouth piece/mask and breathe in normal air, which would wake you up again. It is therefore important that you do not allow anyone to hold the mask or mouth piece over your nose and mouth or between your lips for you.

Nausea

Entonox[®] can occasionally cause nausea (sickness), but this settles once you have stopped using it.

Tingling

Entonox[®] can cause a mild tingling sensation in different areas of the body, for example, in the fingers and around the mouth, however this usually quickly improves once you stop breathing the gas.

The side effects above can be reduced by ensuring you breathe in and out at a controlled rate when using Entonox[®].

Anaemia

Continuous use of Entonox[®] for longer than six to eight hours may cause anaemia, vitamin deficiencies and reduced bone marrow function. This is rare and is only a risk to patients in extreme circumstances. Procedures such as flexi-sigmoidoscopy or colonoscopy only last for approximately 30 minutes, so it is very unlikely that you would experience any of these problems.

What happens if I cannot tolerate the side effects?

Most patients find that if they concentrate on breathing slowly, they quickly become used to any sensations of dizziness, nausea or tingling. However, if you decide that Entonox[®] does not suit you, alternative pain relieving medication can be given instead.

Are there any alternatives?

You may wish to consider intravenous sedation. If you choose this method, then medication will be given via an intravenous cannula (small plastic tube that is put into your vein). The medicines are usually a combination of a painkiller and a sedative which together make most people feel drowsy and relaxed. The nurses caring for you can provide you with more information on intravenous sedation.

How can I prepare for using Entonox[®]?

Before you can use Entonox[®], we will record your blood pressure, pulse and the amount of oxygen in your blood stream (oxygen saturation) using a special machine. We will also ask some questions to make sure that it is suitable for you.

Please tell the nurse if you:

- have recently used Entonox[®] for a procedure
- currently have, or have recently had an ear infection, or an operation on your ears
- have, or have recently had eye surgery
- have recently had a head injury, which required you to be in hospital.
- have recently been scuba diving
- are pregnant, or believe you may be pregnant
- have recently suffered from a condition causing acute breathing problems (a chest injury, for example, or a collapsed lung)
- have emphysema, or chronic breathing problems, such as chronic bronchitis or asthma
- have been told that you have a low **vitamin B12**, in which case Entonox[®] should not be used.

How is Entonox[®] given?

Entonox[®] is designed to be self-administered – a specially trained nurse or doctor will show you what to do. You will be asked to choose either a mouth piece, which is placed into your mouth or a face mask, which is placed over your nose and mouth. It is important that you hold the mouthpiece firmly between your teeth/lips or the mask firmly over your nose and mouth to form a good seal. You will be asked to breathe deeply, for one to two minutes before the procedure begins to ensure that the painkiller is in your body. Entonox[®] will only flow when you breathe in, therefore the deeper you breathe, the better your pain relief will be.

What do I need to do after I go home?

You do not have to take any special precautions if you have used Entonox[®] for your procedure, as its effects will have worn off by the time you leave the hospital.

Contact us

If you have any problems or concerns, please contact the Lithotripsy Department in the Day Surgery Unit, on **020 7188 1734**. This number operates between 9am and 5pm, Monday to Friday.

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

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language Support Services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk