**PRESENTATION**
Entonox\(^1\) is a combination of nitrous oxide 50%-oxygen 50%. It is stored in medical cylinders that have a blue body with white shoulders.

**ACTIONS**
Inhaled analgesic agent.

**DOSAGE AND ADMINISTRATION**

**Adults**
Entonox should be self-administered via a facemask or mouthpiece, after suitable instruction. It will take about **3-5 minutes** to take effect, but it may be **5-10 minutes** before maximum effect is achieved.

**Children**
Entonox is safe to use with children provided they are capable of following the administration instructions.

Hospital emergency department staff should be informed when Entonox has been used.

**ADDITIONAL INFORMATION**
Administration of Entonox should be in conjunction with pain score monitoring.

Entonox has major advantages:
- analgesic effect is rapid, with minimal side effects
- no cardiac or respiratory depression
- can be self-administered
- analgesic effect rapidly reverses, so as not to mask symptoms
- the 50% oxygen concentration is valuable in many medical and trauma conditions
- Entonox can be administered whilst establishing intravenous access to deliver morphine.

The usual precautions must be followed with regard to caring for the Entonox equipment and the cylinder **MUST** be inverted several times to mix the gas when temperatures are low.

**INDICATIONS**
Moderate to severe pain.

Labour pains.

**CONTRA-INDICATIONS**
Severe head injuries with impaired consciousness, as it will further impair consciousness.

Decompression sickness (the bends) where Entonox will expand the size of nitrogen bubbles within the blood stream, further aggravating the problem. Anyone who has been diving within the previous 24 hours should be considered at risk.

Violently disturbed psychiatric patients.

**SIDE EFFECTS**
Minimal side effects.

**CAUTIONS**
Chest injuries and other conditions when a pneumothorax is suspected, as it may expand this (unless a chest drain is in situ).

\(^1\) For convenience nitrous oxide 50%–oxygen 50% is referred to as Entonox because of the UK ambulance personnel’s familiarity with this name.