



Information for Patients and Carers

Penthrox for Pain Relief



What is Pentrox?

Penthrox is a pain-relieving vapour which can be inhaled through a custom-built device known as a 'Green Whistle'. Pentrox contains the active substance methoxyflurane, which is a type of anaesthetic medicine, but the dose used in a Pentrox inhaler is significantly lower than that used for a general anaesthetic. In the UK, Pentrox is currently only licensed for use in adults so its use in children is considered 'off-label'. In other parts of the world (i.e., Australia) it has been licensed for use, and used safely, in children for over 30 years. It has been used recently for children in a number of UK hospitals without safety concerns.

What are the benefits of using Pentrox?

- Strong, short-acting pain relief.
- Self-administered so it can be used to 'keep on top' of pain.
- Reduces the need for needles or indwelling intravenous access.



What you need to know before your child is given Pentrox.

The majority of patients can use Pentrox and a doctor or nurse will ensure that it is safe for your child before prescribing it.

Penthrox should not be used if:

- Your child is allergic or has had a bad reaction to any anaesthetic given through a mask.
- Your child or family has a history of malignant hyperthermia. This is a condition where a very high fever occurs after being given an anaesthetic.
- Your child has serious kidney or liver problems.
- Your child has significant heart or circulatory problems.
- Your child has recently taken or is taking certain medications such as strong painkillers and some types of antibiotics, anticonvulsants, antivirals and sedative antihistamines. Please inform your doctor about any regular or recent medication and they will advise accordingly.

Helping your child to use Pentrox.

Before use, a nurse or doctor will show your child how to use the device correctly. Pentrox is self-administered which means your child will have control of when to use it. It is simple to use with the mouthpiece held in between the teeth and the lips closed around it. Your child will be asked to breathe normally in and out through their mouth. It is important that your child breathes out through the mouthpiece as this collects any exhaled drug vapour rather than it being released into the air. It usually takes 6-10 breaths before the medicine starts working.

Pentrox has a strong fruity taste and smell. The first few breaths often taste very strong and can cause patients to cough, but the coughing sensation settles after the first few breaths.

Once Pentrox has started working, your child can breathe it in from time to time when they feel they need more pain relief. When used like this an inhaler will typically last around an hour. If we need to carry out a painful procedure (such as; applying a cast, dressing a burn or treating a fracture or dislocation) we may ask your child to use the inhaler continuously for a short period of time in order to provide strong pain relief whilst we perform the procedure. When used like this an inhaler will typically last around 20 minutes. Pain relief will continue for several minutes after stopping Pentrox.

What are the possible side effects?

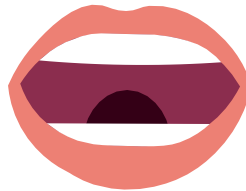
The most likely side effects can include:



Headache



Dizziness



Dry mouth



Drowsiness



Sickness



Tingling skin



Double vision



Flushing of the skin or skin irritation

These side effects normally wear off within a few minutes of stopping use. If your child becomes drowsy, they will be unable to hold the mouthpiece to their mouth stopping them from inhaling the vapour and therefore allowing the drowsiness to resolve. If your child becomes drowsy or unresponsive, please alert a member of staff.

Serious side effects are rare but include allergic reactions, liver damage or kidney problems. If your child becomes unwell after using Pentrox please seek medical attention and inform staff that your child has recently used Pentrox.



To be able to read this leaflet in different languages, please scan the QR code or visit our Paediatric Emergency Department webpage on <https://mft.nhs.uk/pentrox-for-pain-relief/>

