

Inducible Larygeal Obstruction (ILO)

Information for parents and carers

The Larynx (Voice-Box)

The larynx is situated in your throat, behind your Adam's apple and above your windpipe. Two white bands called the vocal cords are attached above the windpipe. During breathing the vocal cords must remain open to allow air to pass freely in and out of the lungs.

We close our vocal cords:

- When we swallow, to stop food and drink entering the windpipe (going down the wrong way)
- When we cough, to get rid of anything from the airway that shouldn't be there (e.g. food, mucus from our chest)
- When we voice, we open and close the vocal cords quickly to create a vibration for sound.



Open Vocal Cords (Breathing)



Closed Vocal Cords
(Swallowing, Coughing and Voicing)

What is ILO?

Inducible Laryngeal Obstruction (ILO) is an in co-ordination of the breathing cycle at the level of the vocal cords. Instead of remaining open when breathing, the vocal cords, and sometimes other throat muscles, squeeze together. This creates a barrier and makes it difficult for air to pass through to the windpipe and into the lungs.

Common symptoms of ILO include:

- Breathlessness, including noisy breathing (e.g. stridor)
- Coughing
- Tightness in the throat/choking sensation
- Voice changes.

ILO is most commonly caused by hypersensitivity in the throat.

What can cause hypersensitivity?

- Inflammatory airways disease (e.g. asthma)
- Respiratory or throat infections
- Throat procedures (e.g. surgery, intubation, bronchoscopy)
- Exposure to irritants (e.g. smoke, fumes, reflux, inhalers)
- Coughing or shouting.

Common ILO triggers

- Exercise
- Irritation (e.g. aerosols, perfumes, pollen, cold air, reflux)
- Vocal tasks (e.g. talking/laughing)
- Stress/anxiety.

Treatment

Your respiratory physiotherapist can teach you ways to relax the muscles around your throat and jaw to help reduce the occurrence of ILO called Deconstriction exercises. We can also teach you ways to respond to an ILO episode known as Rescue Breaths.

Deconstriction exercises

These exercises are designed to reduce the tension around the jaw, tongue, and the muscles in and around your voice-box. The aim is to relax and open the throat so that air can flow freely in and out of your lungs.

Do each of these exercises twice daily:

- 1. Shrug your shoulders up to your ears and hold for a count of 3. Feel the tension across your shoulders. You don't want this tension so let it go and let your shoulders relax down leaving your neck feeling long. Repeat 5 times.
- 2. Roll your shoulders backwards or forward making big circles. Repeat 5 times.
- 3. Look down putting your chin towards your chest. You might feel a pulling sensation at the back of your neck. Hold that position for a count of 3 and then return to normal. Repeat 5 times.
- 4. Turn to look over one shoulder and keep your head there for a count of 3. You might feel a pulling in the opposite side of your neck. Now look over the other shoulder and keep it there for a count of 3. Repeat 5 times for each side.
- 5. Drop your ear to your shoulder and hold it there for a count of 3. You might feel a pulling in the opposite side of your neck. Bring your head back upright and then drop the opposite ear down to your shoulder. Repeat 5 times for each side.
- 6. To relax your jaw, do 5 big exaggerated yawns. Take your time and enjoy them.

The second group of exercises you can do a little and often through the day. Link them in with everyday activities (watching TV, going to the bathroom, etc.) so that they become automatic.

You might aim to do these 8 times per day

- 1. Open your mouth wide and stick out your tongue as far as possible. Hold for 10 seconds then relax.
- 2. Blowing bubbles put a straw in all your drinks and blow a steady stream of bubbles through the straw for 10 seconds.
- 3. Make a gentle noisy yawn with your mouth wide open.
- 4. Gently hum 'mmmmm' you should feel the buzz on your lips if you do this correctly.

Rescue breaths

This technique is designed to encourage upper airway relaxation to help you breathe. It is important to practice the technique when you have no symptoms so that you are familiar with it. This can then be used in the event of throat tightness and difficulty breathing.

- 1. Keep calm
- 2. Sit down either with your palms facing upwards in your lap **or** lean forwards from your hips, resting your elbows in your lap.
- 3. **Sniff in** short gentle sniffs **in**.
- 4. 'Gentle' blow out short gentle blows out with lips rounded and relaxed like blowing bubbles or blowing out a candle

Start with fast sniffs/blows and slow down gradually over time as your breathing settles.

With practice you will be able to utilise this technique in any position, not just when sitting down. You should find your symptoms settle more readily when you have perfected the technique so practice it little and often until it becomes familiar to you.

Further information:



Colleagues from NHS Newcastle Upon Tyne Hospitals have created a useful video resource sharing further information and demonstrations of breathing techniques. It can be accessed through the link and QR code: https://youtu.be/5sTW mJBjiU

In NHS Lothian this service is led by Physiotherapy rather than Speech and Language.

Acknowledgements:

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Contact us

If you have any further questions, please contact your named physiotherapist or the Physiotherapy Department, Royal Hospital for Children and Young People on **0131 312 1079**

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