

## Patient Information

# Superior Laryngeal Nerve Block

This leaflet provides information about the **superior laryngeal nerve block (SLNB)**, a procedure used to manage **neurogenic cough**. It explains the purpose of the procedure, how it is performed, and any potential risks. Please speak to your doctor or specialist if you have any questions or concerns.

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## What is a Neurogenic Cough?

A **neurogenic cough**, also known as **chronic refractory cough**, is a persistent cough lasting more than 8 weeks, which is not caused by infection, asthma, reflux, or other common causes. It is thought to result from heightened sensitivity or irritation of the nerves in the throat—particularly the **superior laryngeal nerve**.

This can lead to coughing in response to triggers such as talking, laughing, cold air, or even without any clear reason.

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## What is a Superior Laryngeal Nerve Block?

The **superior laryngeal nerve block** involves injecting a small amount of local anaesthetic, and sometimes steroid medication, near the superior laryngeal nerve in the neck. This nerve helps regulate sensation in the upper airway and throat.

By temporarily “numbing” the nerve, the block can reduce its sensitivity and break the cycle of irritation that leads to chronic coughing.

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## Why Might I Need This Procedure?

If other treatments such as cough suppressants, reflux medications, or speech therapy have not helped, your specialist may recommend a **superior laryngeal nerve block**. This procedure can:

- Reduce the frequency and severity of your cough
- Improve your quality of life
- Allow your throat to “reset” and reduce nerve hypersensitivity

This procedure is particularly useful when neurogenic cough has persisted despite medical and behavioural treatment.

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## What Happens During the Procedure?

- You will be asked to sit or lie down comfortably.
  - The skin on your neck will be cleaned with antiseptic.
  - The doctor will feel for a small bone in your neck (the hyoid) and use it to guide the injection.
  - A fine needle is used to inject local anaesthetic (and possibly a steroid) near the superior laryngeal nerve.
  - The entire procedure usually takes less than 10 minutes.
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## What Should I Expect After the Injection?

- You may notice improvement in your cough within a few hours to a few days.
- Some people experience hoarseness or a “lump in the throat” sensation—these effects usually wear off within 24–48 hours.
- You may require **repeat injections**, often spaced a few weeks apart, depending on how your symptoms respond.

In a recent clinical study, over **80% of patients** with neurogenic cough reported significant improvement in their symptoms after superior laryngeal nerve blocks\*.

\* Tipton CB, Walters R, Gudipudi R, Smyre D, Nguyen S, O'Rourke AK. The Efficacy of Superior Laryngeal Nerve Block for Neurogenic Cough: A Placebo-Controlled Trial. *Laryngoscope*. 2023 Nov;133(11):3068-3074. doi: 10.1002/lary.30739. Epub 2023 May 11. PMID: 37166167.

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## Are There Any Side Effects?

While generally safe, the procedure can occasionally cause:

- Temporary hoarseness or voice changes
- Mild soreness or bruising at the injection site
- A feeling of numbness in the throat
- Rarely, allergic reaction or infection at the injection site

Serious complications are very rare. Your doctor will discuss the risks and answer any questions you may have before the procedure.

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## Are There Alternatives?

Yes. Other treatments that may be used alone or alongside SLNB include:

- Neuromodulator medications (e.g. amitriptyline, gabapentin)
- Speech and language therapy for cough suppression techniques
- Behavioural therapy to reduce cough triggers

- Botulinum toxin injections (in select cases)

Your doctor will tailor your treatment plan based on your individual needs and response to therapy.

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## **Consent and Further Information**

Before your procedure, your doctor will explain the benefits, risks, and alternatives. You will have the chance to ask questions and give your informed consent.