

## Patient Information

# Subglottic Stenosis

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## What is Subglottic Stenosis?

**Subglottic stenosis** is a narrowing of the airway just below the **vocal cords**, in a region called the **subglottis**. This narrowing can make it harder to breathe and may also affect the sound of your voice.

It can occur at any age and may range from mild to severe. In some cases, it is discovered during investigation for breathing difficulties, noisy breathing (stridor), or persistent hoarseness.

## What Causes Subglottic Stenosis?

There are several possible causes, including:

- **Prolonged intubation** (breathing tube in the windpipe)
- **Trauma or surgery** to the airway
- **Inflammatory conditions**, such as:
  - *Idiopathic subglottic stenosis* (cause unknown, most common in middle-aged women)
  - *Granulomatosis with polyangiitis* (a rare autoimmune condition)
- **Infections**
- **Congenital stenosis** (present from birth)

In many cases, especially in **idiopathic subglottic stenosis**, the exact cause is not known.

## What Are the Symptoms?

Symptoms depend on how narrow the airway is and may include:

- **Noisy breathing** or **wheezing** (often mistaken for asthma)
- **Shortness of breath**, especially with exercise
- **Voice changes** (weak, hoarse, or strained voice)
- **Chronic cough**
- Feeling of **tightness in the throat**
- In severe cases, **stridor** (a high-pitched sound during breathing)

## How is it Diagnosed?

Diagnosis usually involves:

- **Clinical assessment** and history
- **Flexible nasendoscopy** – a small camera passed through the nose to look at the airway
- **CT scan** or **MRI** of the neck
- **Microlaryngoscopy and bronchoscopy** under general anaesthetic – to view the airway in detail and assess the degree and length of narrowing

## How is it Treated?

Treatment depends on the **severity** and **cause** of the stenosis. Common treatments include:

### 1. Endoscopic (Minimally Invasive) Procedures:

- **Balloon dilatation** – the narrowing is stretched open using a special balloon
- **Laser or cold steel surgery** – used to carefully remove scar tissue
- Often combined with **steroid injection** or **mitomycin C** (to reduce recurrence)
- Usually a **day case** procedure under general anaesthetic

### 2. Open Surgery (for severe or recurrent cases):

- **Laryngotracheal reconstruction (LTR)** – cartilage grafts are used to widen the airway
- **Tracheal resection** – removal of the narrowed segment with reconnection of the airway

### 3. Tracheostomy (in some cases):

- A breathing tube is placed through the neck into the windpipe to bypass the narrowing, often as a temporary measure

Your specialist will discuss the best approach for your individual case.

## What is the Outlook?

- Many patients experience **good improvement in breathing and voice** after treatment.
- **Multiple treatments** may be needed over time, especially for idiopathic subglottic stenosis.
- **Regular follow-up** is important to monitor for recurrence.

- **Voice therapy** may be helpful if the voice is affected.

## Living with Subglottic Stenosis

- You may need to avoid irritants like smoke, pollution, or reflux.
- It's helpful to recognise early signs of recurrence (e.g. breathlessness, noisy breathing).
- Ongoing care may involve an ENT surgeon, respiratory specialist, and speech and language therapist.

## When to Seek Medical Advice

Contact your doctor or attend A&E if you experience:

- Sudden or severe **difficulty breathing**
- **Noisy breathing** that is getting worse
- New or worsening **voice changes** or **stridor**

## Summary

Subglottic stenosis is a narrowing just below the vocal cords that can affect breathing and voice. It can often be managed effectively with **minimally invasive procedures**. Ongoing **monitoring and follow-up** are important, as recurrence is possible. Treatment is tailored to the cause and severity of the condition.

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## Further Information

If you have any concerns or need further advice, please contact your healthcare provider.