SYMPTOM

Stridor

Stridor is a harsh, high-pitched breathing sound caused by narrowed airflow in the throat or upper airway.

WHAT IT FEELS LIKE
A harsh, high-pitched noise when breathing in

WHERE IT IS FELT
Throat and upper airway

MOST COMMON CAUSES
Viral croup, infant airway softness, vocal cord problems

WHEN IT IS URGENT
New or worsening noise, especially with breathing difficulty

USUALLY LASTS
Minutes to months, depending on the airway cause

SEE A DOCTOR IF
Noise has stopped but recurs, or voice remains changed

Overview

Stridor is a harsh, high-pitched sound produced when air moves through a narrowed upper airway. The narrowing is usually around the voice box or upper windpipe.

Stridor is most often heard while breathing in. It may sometimes occur while breathing out or during both parts of the breath. It can be constant or appear only during crying, exercise, feeding, sleep, or illness.

Stridor is different from wheezing. Wheezing usually comes from narrowed airways deeper in the lungs and is often louder when breathing out.

Stridor is a symptom, not a disease. Some causes are temporary, while others need treatment or monitoring. New stridor should receive prompt medical attention because it can sometimes mean that airflow is becoming restricted.

What it may feel or look like

The sound may be squeaky, harsh, musical, or similar to gasping. It can be loud enough to hear

without a stethoscope. Some people feel tightness in the throat or notice that speaking takes more effort.

Other features depend on the cause. These may include:

A loud noise does not always mean more severe narrowing. If stridor becomes quieter while breathing effort, tiredness, or responsiveness worsens, seek emergency help. Reduced airflow can make the sound less noticeable.

- A barking cough, hoarse voice, or cold symptoms
- Noisy breathing that becomes louder during crying or activity
- Skin pulling in between the ribs or above the breastbone
- Trouble feeding, swallowing, speaking, or sleeping
- Coughing or choking after food or a small object enters the airway

Common causes

Common causes in children include viral croup and laryngomalacia. Croup causes swelling around the voice box and often produces a barking cough, hoarseness, and stridor. Symptoms are commonly worse at night.

Laryngomalacia means that tissue above a baby's voice box is softer than usual and briefly falls inward during breathing. The noise often becomes more noticeable during feeding, crying, or lying on the back.

Other possible causes include irritation or swelling after a breathing tube, surgery, infection, or injury. Problems with how the vocal cords move can also narrow the airway. Inducible laryngeal obstruction, sometimes called vocal cord dysfunction, causes the voice box to narrow unexpectedly, often during exercise or after exposure to an irritant.

Less common causes include scarring below the voice box, vocal cord paralysis, cysts, growths, or differences in airway structure present from birth.

Urgent causes include an inhaled object, a serious allergic reaction, severe swelling from infection, or an injury to the neck or airway. Sudden stridor after choking is especially concerning, even if the person can still cough or speak.

When to seek medical care

Call emergency services or go to an emergency department now if stridor occurs with:

Keep the person upright and as calm as possible while waiting for help. Do not put fingers or objects into the throat. If breathing is severely affected, do not drive yourself.

Seek same-day medical advice for new stridor even if breathing seems comfortable. This is particularly important for a baby, after airway surgery or removal of a breathing tube, or when there is fever, neck swelling, feeding difficulty, or a changed voice.

Book a routine appointment if an episode has fully stopped but keeps returning, or if there is ongoing mild noisy breathing, hoarseness, poor feeding, or disturbed sleep. A previously diagnosed condition may also need follow-up if its usual pattern changes.

- Severe or rapidly worsening trouble breathing
- Blue, grey, or unusually pale lips or skin
- Pauses in breathing, collapse, confusion, or unusual sleepiness
- Drooling or inability to swallow
- Sudden onset after choking or possible object inhalation
- Swelling of the lips, tongue, face, or throat
- Skin pulling deeply around the ribs or neck with each breath

How the cause is found

A healthcare professional will ask when the noise started, whether it was sudden, and whether it changes with position, feeding, activity, or sleep. Recent illness, choking, allergies, injury, surgery, and breathing-tube use are important details.

They will listen to the breathing and assess oxygen levels, alertness, swallowing, voice, and the amount of effort needed to breathe. A distressed person with possible severe airway narrowing may be treated before further examination.

Some causes, including typical croup, can often be identified without tests. When more information is needed, a flexible camera may be passed through the nose to view the voice box. X-rays or other scans may be used if it is safe to do so. Bronchoscopy, which uses a camera to examine the airway, may be needed to find or remove an inhaled object.

Treatment and self-care

Treatment depends on the cause and how much breathing is affected. Emergency care may include oxygen and support to keep the airway open.

Croup may be treated with a corticosteroid like prednisone or hydrocortisone to reduce swelling. More significant symptoms may require inhaled epinephrine and observation in a medical setting. A suspected inhaled object usually needs specialist removal. A serious allergic reaction requires emergency epinephrine and further monitoring.

Bacterial infections may need antibiotics like amoxicillin or doxycycline , but antibiotics do not treat viral croup. Structural airway problems may be monitored or treated with a procedure. Breathing retraining with a speech and language therapist can help some people with inducible laryngeal obstruction.

For mild croup being managed at home after medical advice, keep the child calm, offer fluids, and check breathing regularly. Avoid hot steam because it can cause burns and has not been shown to reliably improve croup. Cough and cold medicines do not remove upper-airway narrowing.

What to expect

The course depends on the cause. Viral croup often improves over several days, although symptoms may fluctuate and become worse at night.

Many babies with mild laryngomalacia improve as the airway grows and becomes firmer. Feeding, growth, sleep, and breathing effort still need monitoring.

Stridor caused by airway structure, scarring, vocal cord movement, or repeated throat narrowing may continue or return until the underlying issue is managed. Follow-up may involve an ear, nose, and throat specialist, lung specialist, or children's specialist.

Common questions

Can stridor happen without shortness of breath?

Yes. Mild narrowing may make a noticeable sound before breathing feels difficult. New stridor still needs prompt assessment because symptoms can change.

Is stridor contagious?

Stridor itself is not contagious. An infection causing it, such as a virus responsible for croup, may spread to other people.

Can anxiety cause stridor?

Stress or exercise can trigger inducible laryngeal obstruction in some people. However, new noisy breathing should not be assumed to be anxiety until airway causes have been assessed.

Is stridor the same as snoring?

No. Snoring usually comes from vibration in the nose or throat during sleep. Stridor results from narrowed airflow in the upper airway and can occur while awake or asleep.

Sources

- Merck Manual Professional Edition: Stridor
- National Institute for Health and Care Excellence: Croup
- Canadian Paediatric Society: Acute management of croup in the emergency department
- American Family Physician: Croup-Diagnosis and Management
- Royal Children's Hospital Melbourne: Clinical Practice Guideline-Croup