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Croup

About Croup

Croup is a condition that causes an inflammation of the upper airways — the voice box (larynx) and windpipe (trachea). It often leads to a barking cough or hoarseness, especially when a child cries.

Most cases of croup are caused by viruses, usually parainfluenza virus and sometimes adenovirus or respiratory syncytial virus (RSV). **Viral croup** is most common — and symptoms are most severe — in children 6 months to 3 years old, but can affect older kids too. Some children are more prone to developing croup when they get a viral upper respiratory infection.

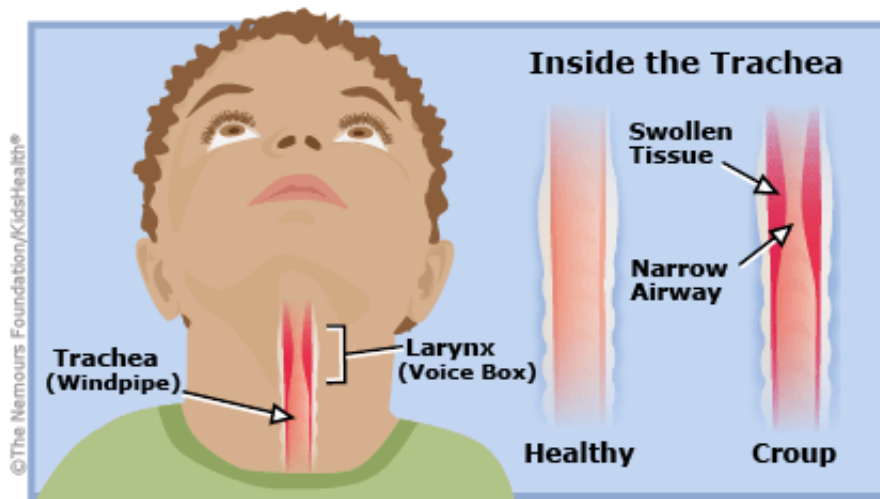
Most cases of viral croup are mild and can be treated at home. Rarely, croup can be severe and even life threatening.

The term **spasmodic croup** refers to a type of croup that develops quickly and may happen in a child with a mild cold. The barking cough usually begins at night and is not accompanied by fever. Spasmodic croup has a tendency to come back again (recur).

Treatment of symptoms is the same for either form of croup.

Signs and Symptoms

At first, a child may have cold symptoms, like a stuffy or runny nose and a fever. As the upper airway (the lining of the windpipe and the voice box) becomes more inflamed and swollen, the child may become hoarse, with a harsh, barking cough. This loud cough, which is characteristic of croup, often sounds like the barking of a seal.



If the upper airway continues to swell, it becomes even more difficult for a child to breathe, and you may hear a high-pitched or squeaking noise during inhalation (called stridor). A child also might breathe very fast or have retractions (when the skin between the ribs pulls in during breathing). In the most serious cases, a child may appear pale or have a bluish color around the mouth due to a lack of oxygen.

Symptoms of croup are often worse at night and when children are upset or crying. Besides the effects on the upper airway, the viruses that cause croup can cause inflammation farther down the airway and affect the bronchi (large breathing tubes that connect to the windpipe).

Contagiousness

Outbreaks of croup tend to occur in the fall and early winter when the viruses that cause it peak. Many children who come in contact with the viruses that cause croup will not get croup, but will instead have symptoms of a common cold.

Diagnosis

Doctors can usually diagnose croup by listening for the telltale barking cough and stridor. They will also ask if your child has had any recent illnesses with a fever, runny nose, and congestion, and if your child has a history of croup or upper airway problems.

If a child's croup is severe and slow to respond to treatment, a neck X-ray may be done to rule out any other reasons for the breathing difficulty, such as a foreign object lodged in the throat, a peritonsillar abscess (collection of pus at the back of the mouth), or epiglottitis (a inflammation of the epiglottis, the flap of tissue that covers the windpipe). An X-ray of a child with croup usually will show the top of the airway narrowing to a point, which doctors call a "steeple sign."

Treatment

Most, though not all, cases of viral croup are mild. Breathing in moist air helps most kids feel better, and ibuprofen or acetaminophen (only in children over 6 months old) can make them more comfortable. As with most illnesses, rest and plenty of fluids are recommended.

The best way to expose your child to moist air is to use a cool-mist humidifier or run a hot shower to create a steam-filled bathroom where you can sit with your child for 10 minutes.

Breathing in the mist will sometimes stop a child from severe coughing. In the cooler months, taking your child outside for a few minutes to breathe in the cool air can ease symptoms. You also can try taking your child for a drive with the car windows slightly lowered.

Consider sleeping overnight in the same room with your child to provide close observation. If you cannot break your child's fast breathing and croupy cough, call your doctor or seek medical attention as soon as possible.

Medical professionals will evaluate your child if the croup appears serious or there is a suspicion of airway blockage. Doctors often treat croup with steroids to decrease airway swelling. For severe cases, doctors will give a breathing treatment that contains epinephrine (adrenalin). This reduces swelling in the airway quickly. Oxygen also might be given, and sometimes a child with croup will remain in the hospital overnight for observation.

Duration

Croup symptoms generally peak 2 to 3 days after the symptoms of the viral infection begin. Viral croup usually lasts 3 to 7 days.

Complications

The vast majority of children recover from croup with no complications. Rarely, a child can develop a bacterial infection of the upper airway, or pneumonia. Dehydration may follow inadequate fluid intake.

Children who were born prematurely or who have a history of lung disease (such as asthma) or neuromuscular disease (like cerebral palsy) are more likely to develop severe croup symptoms and often require hospitalization. Still, croup rarely causes any long-term complications.

Prevention

Frequent hand washing and avoiding contact with people who have respiratory infections are the best ways to prevent spreading the viruses that cause croup.

When to Call the Doctor

Immediately call your doctor or get medical attention if your child has:

- difficulty breathing, including rapid or labored breathing
- retractions: when the skin between the ribs pulls in with each breath
- stridor: high-pitched or squeaking noise when inhaling
- a pale or bluish color around the mouth
- drooling or difficulty swallowing
- a fatigued appearance
- signs of dehydration (including a dry or sticky mouth, few or no tears, sunken eyes, thirst, no urine or only a little dark yellow urine for 8-12 hours, extreme tiredness)
- a very sick appearance

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Note: All information is for educational purposes only. For specific medical advice, diagnoses, and treatment, consult your doctor.