

# Croup

Croup is a respiratory infection with symptoms of a “barking” cough, hoarseness, and, at times, some difficulty breathing. The child usually improves after a few days of home treatment, but may need to see a doctor if the symptoms are severe enough.

## What is croup?

Croup is a respiratory infection involving the voice area (larynx) and windpipe (trachea). It is usually caused by a virus, including some of the same viruses that cause a cold. Croup usually occurs in younger children—about age 4 or less. It can be scary because of the sound of the “barking” cough, one of the main symptoms. Although most children recover in a few days, often there is some difficulty breathing. The medical term for croup is *laryngotracheitis*.

## What does croup look like?

- Your child may have symptoms of a cold (runny nose, sore throat, or cough) for a few days before the typical symptoms begin.
  - A “barking” cough is the most common symptom.
  - It usually involves hoarseness.
- A harsh sound when breathing in is common. This is called *stridor*. This stridor can be mild or severe and cause difficulty breathing.
- If there is a lot of difficulty breathing, the ribs may stick out and the chest may get sucked in with each breath. This type of breathing is called *retraction*. Retractions can also occur where the neck meets the collar bones.
- Fever may be present.
- Symptoms, especially stridor, are worse when the child is upset or crying.
- Symptoms are usually worse at night and last a few days, but should be gone within a week.

## What puts your child at risk of croup?

- Croup most often occurs in younger children, under age 3 to 4. When croup occurs in older children, it is usually less severe.
- Croup is most common in the winter months but can occur year round.

- Children who have had croup before are more likely to have additional attacks.
- Infants or older children with narrowing of their airways (voice box) resulting from other conditions, such as being on a respirator with a breathing tube in place as a premature baby.

## Can croup be prevented?

There is nothing specific you can do to prevent your child from developing croup.

## How is croup diagnosed?

- Diagnosis is usually made from symptoms and physical examination.
- Occasionally an x-ray of the neck is needed to be sure the illness is croup.

## How is croup treated?

*Home treatment.* If symptoms are mild, treatment can be done at home without seeing a doctor. The child must *not* have stridor (harsh sound when breathing in), retractions, or difficulty breathing. They also must not appear to be acting very sick and must be taking enough liquids.

- For some children, cool mist with a vaporizer or moist air with a humidifier may help.
- If a vaporizer or humidifier is not available, turning on a hot shower and sitting in the bathroom with your child may help.
- Lots of liquids.
- Acetaminophen (Tylenol) or ibuprofen (Advil) may be needed for fussiness or fever.

*Other treatments* at the doctor’s office, hospital, or emergency room:

- Steroids have been shown to be helpful and are often given except for very mild cases. Usually just one dose is needed, either orally or as a shot.
- If your child is having a lot of problems breathing, a drug called *epinephrine* may be given as a mist to breathe through a mask.
- Antibiotics are not given unless the doctor think a bacterial infection is now a problem.
- If your child is not taking enough liquids or is dehydrated, fluids may have to be given intravenously (IV).
- Oxygen may be needed if found to be low.

- Your child may have to stay in the hospital if there is still a lot of trouble breathing after the first treatments or if the problem returns.

### What are some possible complications of croup?

- Most children recover from croup without problems.
- Although uncommon, breathing problems may become severe enough that a tube will be placed down your child's airway (windpipe) so he or she can breathe more freely. This is called *intubation*.
- Infection can spread to the smaller breathing tubes (bronchioles) or lungs and cause wheezing or pneumonia.

### When should I call your office?

You should call our office or seek medical attention if:

- You are concerned that your child is having difficulty breathing.
- Stridor (harsh sounds when breathing in) occurs when your child is resting or calm.
- Your child shows evidence of stridor (chest caving in and ribs sticking out when breathing).
- Your child drools excessively.
- Your child turns blue (cyanosis) at any time. *This is an emergency—call 911.* 
- Symptoms do not improve after a few days.