

# How to Manage Croup?

Dear parents,

This week, I wanted to share with you some information about a common illness that affects infants and young children – Croup. Although usually croup resolves on its own, about 5-10% of children affected by it require hospitalization. As a pediatric resident at Cohen Children's Hospital, I vividly remember croup as one of the most frequent reasons for late night and early morning visits to the Emergency Room.

## What is Croup?

Croup is a viral disease of the upper respiratory tract. It is caused by several different viruses such as Respiratory Syncytial Virus (RSV), Influenza and Para-Influenza Viruses, Adenovirus and Rhino Virus. Prior to the vaccine era, Diphtheria was also a common cause of severe croup.

Children with croup will have the usual symptoms of a cold (i.e. runny nose, fever and increased mucus production) along with a characteristic barky cough.

## Why Does Croup Affect Young Children?

I love demonstrating the reason to parents using simple diagrams of our trachea (breathing pipe). Viruses that cause croup lead to swelling and mucus production in our upper airways. As adults our upper airways are large and have a lot of excess capacity to accommodate for swelling caused by infections. But take the small airways of infants, and the *same thickness* of swelling will lead to 50-80% narrowing of their tracheas. Hence, children affected by the croup feel that they are “breathing through a straw”.

## How to Deal with Croup?

When your child wakes you up with a croupy cough, first and foremost try and assess their breathing. If they appear to be gasping for air – call for medical help immediately!!!

If they are not gasping for air but do have a barky cough, you have a few options: As a word of caution, if your child has a heart condition or a very high fever, they may not be able to handle any of the following solutions. You should call your physician and ask for help.

1. **Steam Shower** – turn on the hot water in the shower and make the bathroom nice and steamy. Hold your child there for 10-15 minutes. Do not worry about taking them out from a warm shower to a cooler room. Usually, the steam shower will alleviate most “croupy” coughs.
2. **A Stroll Outside** – if you feel your neighborhood is safe, take your child for a quick stroll outside. Otherwise, you could take them for a car ride and leave the windows open. Many times, parents would bring their child to the emergency room

and frantically describe how horrible their child's croup was. However, when we observed the child, they were already better. The dramatic improvement was to the credit of the car ride – the humid air in the car cured the croup.

3. **The Croup Paradox** – even though hot steam works to treat croup, the opposite also works. Holding the child next to an open freezer for a few minutes. Personally, I have never tried this one with my kids but this is an accepted method by many parents and physicians alike. Why it works? The cool vapor makes it easier for the child to breath.
4. **Prevention** - if you hear your child's cough during the daytime, assume that the cough will be significantly worse at night. Why? Because the air is much drier and hence more irritating to the child. Therefore, I often suggest leaving the bedroom's window open an inch or two or using a cool mist humidifier overnight.

If you tried one of these methods and your child appears worse, please seek immediate help. Your child may have an underlying medical condition that requires them to receive oxygen or their croup may be unusually severe and may necessitate immediate medical intervention.

### **Will my Child Develop Croup Again?**

The answer is most likely yes. Most children develop croup until the age of 3-4 years old. As long as the child's airways are narrow and soft the above mentioned viruses will cause significant swelling that will result in Croup. At 3 years of age, the airways harden and widen enough to withstand the viral swelling. There are always exceptions however. I have personally witnessed several kids that were older than 8 years old and required hospitalizations for Croup. Also, premature infants or infants that were intubated have extra sensitive upper airways and may develop croup for longer periods.

If your child develops croup repeatedly, your physician may decide to prescribe a rescue medicine that will quickly reduce the swelling in your child's upper airways and save you the trip to the emergency room.

### **Weather Alert**

The causative viruses I mentioned above are present at different seasons. At each season however, there is always one or two offending viruses present in the air. As I write this article, the weather is noticeably colder outside. This will prompt many parents to heat their houses and will dry the air in your house. So keep attuned to your child's cough and if you hear that "bark" please take the preventive measures I mentioned to keep your child healthy and keep you well rested!

Wishing you a healthy winter,

David Elazar Simai M.D.