Croup, a type of respiratory infection that affects the upper airways, is almost always caused by a cold or flu virus. Rarely, croup can be caused by a bacterial upper-respiratory infection, inhaled allergens, or other irritants. Croup is marked by a swelling of the tissue around the voice box and windpipe that results in a tight, barking cough and hoarseness. The condition usually occurs in infants or children under the age of 5 years, although some older children and teens may suffer from it. Because croup starts with a cold or flu virus, the condition is more common during the winter, when these viral infections are prevalent.
Marked by a Loud, Barking Cough

Croup usually begins a few days after the symptoms of a mild cold and usually is worse during the nighttime hours. Often, the tight, barking cough and difficulty breathing will suddenly awaken the child. The symptoms of croup occur because the swelling of the tissue around the voice box (larynx), windpipe (trachea), and bronchial tubes narrow the airway passages, making it difficult to inhale and exhale. If the child’s airway is narrowed sufficiently, a harsh, rasping noise occurs when the child breathes in. This symptom is called stridor.

Young children are particularly susceptible because their young airways are already small. Because of the symptoms, croup can be a frightening condition for the parent as well as for the child, although it usually is not a serious illness.

Croup is diagnosed by performing a physical examination that includes listening to the child’s breathing and cough, examining the throat, and sometimes chest x-rays to rule out other diseases.

At-Home Treatment

The treatment of croup depends on the severity of symptoms. Most children can be effectively treated at home. At-home treatment of croup includes increased intake of fluids and plenty of rest during the day, with acetaminophen to treat fever, if present. Cough medicine should not be used unless directed by a physician. At bedtime, the use of a cold, moist air vaporizer in the child’s room is often recommended.

If the cough becomes severe during the night, many doctors recommend keeping the child in an upright position while breathing in warm, humidified air from a steamy bathroom after running a hot shower. Since cool air may also help troublesome croup symptoms, caregivers are instructed to try opening a window to let the child breathe the cooler air. Remaining calm and comforting the child will help lower his or her anxiety level and minimize crying, which can make the symptoms worse.

If these measures do not ease the symptoms or if the child is extremely agitated, shows bluish skin around the lips, or has difficulty swallowing or moving air, medical treatment should be sought immediately—don’t wait until morning.

Treating Serious Cases

The treatment of a more severe case of croup, especially if the child is having difficulty moving air, requires a physician’s care. In many cases, a short course of oral corticosteroids will relieve the swelling that causes the symptoms, helping lessen the cough and making it easier for the child to sleep. In serious cases of croup, drugs such as corticosteroids or epinephrine can be used along with humidified air to ease the cough and breathing difficulties associated with severe airway swelling.

In some children, a few days of oral corticosteroids will help shrink the swelling and clear symptoms more quickly. Serious bacterial causes of croup include epiglottitis and bacterial tracheitis. Epiglottitis is a life-threatening inflammation of the epiglottis (a flap of cartilage that covers the airway during swallowing) in which the resulting swelling can block the airway. Bacterial tracheitis is a bacterial infection of the upper airway. Both of these conditions require diagnosis by a doctor and antibiotic therapy.

If you have questions about croup or managing nighttime symptoms, talk to your local pharmacist or another healthcare practitioner.