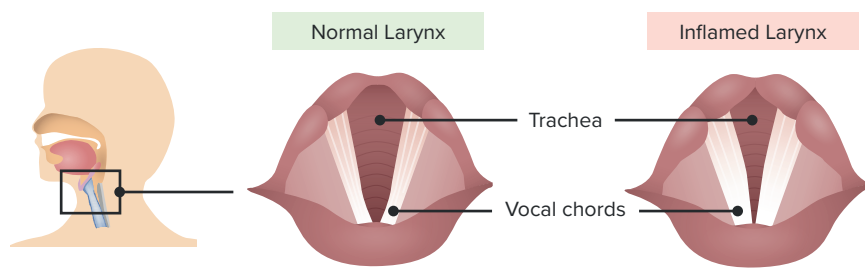


CROUP



Croup is a symptom, characterized by infection and inflammation of the upper airway (trachea and larynx)

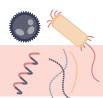
Etiologies

Viral causes



- Parainfluenza viruses types 1 and 3 (80% of cases)
- Influenza virus A and B
- Respiratory syncytial virus (RSV)
- Adenovirus
- Rhinovirus

Bacterial causes



- Staphylococcus aureus
- Streptococcus pyogenes
- Streptococcus pneumoniae
- Haemophilus influenzae
- Moraxella catarrhalis

Signs & Symptoms

Typically starts as mild cold

	Cough: loud barking		Nasal: congestion or runny nose
	Respiratory: difficulty breathing, fast breathing, noisy breathing, shortness of breath, wheezing, or stridor		Speech: hoarseness, or impaired voice
			Time: worse at night
	Also common: agitation, anxiety, phlegm, or sore throat	For most children, croup is a mild illness that can be managed at home	

Diagnosis

History of symptoms
Physical exam
Barking cough, hoarseness, inspiratory stridor
Low-grade fever
Absence of wheezing

Pathophysiology

Viral infection of the laryngeal mucosa

Inflammation, hyperemia, epithelial necrosis and shredding
► results narrowing of the subglottic region

Breathe more rapidly and deeper to compensate for the narrowing of the upper airway

Turbulent airflow (stridor) through the upper airway, chest wall begins to retract

Inefficient asynchronous chest and abdominal movement, fatigued

Hyproxia and hypercapnia, progress to respiratory failure and arrest

Treatment

Corticosteroids (dexamethasone, prednisone)

In serious cases: racemic epinephrine nebulizer

Acetaminophen and/or Ibuprofen (only > 6 months old)

Humidified air – debatable efficacy



Complications



Secondary bacterial infections

Dehydration

Respiratory distress

May need oxygen support, fluids and racemic epinephrine

i Complications are rare.

