

Common Emergency Presentations - Croup

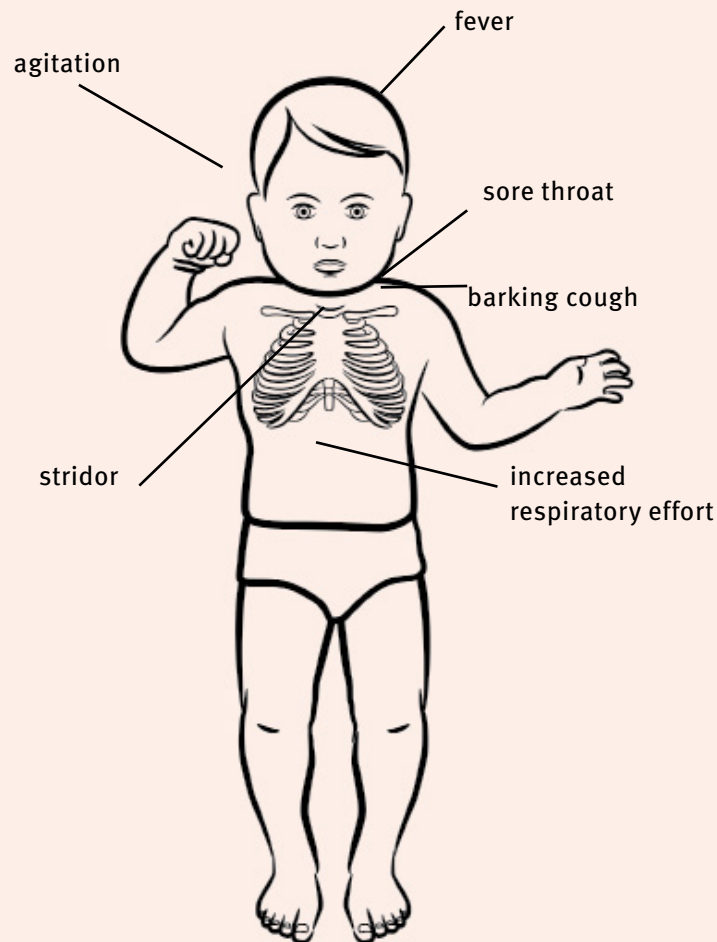
Croup is a condition where inflammation to the upper airway, larynx and trachea is triggered by a virus. As infants and children have smaller and narrower airways this inflammation is problematic.

Age Affected

Croup usually occurs between 6 months and 5 years of age.



Croup signs and symptoms*



*list not exhaustive

In mild cases, children will often have a hoarse voice and a characteristic barking cough. In severe cases it can cause obstruction to the airway, presenting in the form of an inspiratory stridor and result in increased respiratory effort.



Croup Severity Assessment

	Mild:	Moderate:	Severe:	Life threatening:
Bark and stridor	Occasional barking cough, no audible stridor at rest	Frequent barking cough, audible stridor at rest	Persistent stridor at rest (may be expiratory)	Audible stridor may be quieter
Respiratory distress	No or mild respiratory distress at rest	Moderate respiratory distress	Severe respiratory distress	Exhausted, poor respiratory effort
SpO ₂ on room air	Normal SpO ₂ , no cyanosis	Normal SpO ₂ , no cyanosis	SpO ₂ equal to or less than 93% or cyanosis	SpO ₂ equal to or less than 93% or cyanosis
Level of consciousness	Alert	Little or no agitation	Fatigue or altered mental state	Lethargy or decreased level of consciousness



ALERT

Children with croup should be made as comfortable as possible. Take special care not to distress the child as this may exacerbate symptoms.

Oxygen desaturation may herald an impending complete upper airway obstruction.

Risk factors for severe disease

- age less than six months
- underlying structural upper airway condition e.g. tracheomalacia, subglottic stenosis
- history of previous severe croup
- unplanned representation to ED within 24 hours of first croup presentation
- trisomy 21

Treatment

There is no definitive treatment for the viruses that cause croup. Therapy is aimed at decreasing airway oedema and providing supportive care (respiratory support and maintenance of hydration). For more information on the treatment of croup including medication dosages please refer to the ['Management Tab' of the Queensland Paediatric Emergency Care Guideline: Croup - Emergency management in children.](#)

Nursing skill sheets you can utilise when caring for children with Croup

- [Respiratory Assessment](#)
- [Hydration Assessment](#)



Tips for Caring for Children with Croup:

- Ensure regular vital signs and respiratory observations are carried out and documented. If stridor is present at rest or when upset, ensure prompt medical review. For guidance on the observation frequency for your patient, discuss with senior nursing staff and the treating medical officer. Please also ensure you follow the [CHQ Procedure: Use of Children's Early Warning Tool \(CEWT\)](#)
- If nebulised adrenaline is administered, 15 minutely observations are required for the first hour.
- All nursing care should be centred around keeping the infant or child as settled as possible. If willing and able to help, actively involve caregivers in administering any prescribed medications.
- Croup is often worse at night. Many caregivers and their children will present overnight.
- Be mindful a laryngeal foreign body can present with similar symptoms (voice changes, stridor, increased respiratory effort). Croup usually develops over a few days with a concurrent coryzal illness.

For further information:

[Queensland Paediatric Emergency Care Guideline: Croup - Emergency management in children](#)

Video:

[Children's Health Queensland: Croup](#)

References:

This Queensland Paediatric Emergency Nursing Skill Sheet was developed by the Emergency Care of Children working group (funded by the Queensland Emergency Department Strategic Advisory Panel) with the help of the following resources:

Children's Health Queensland Hospital and Health Service. (2017a). Transition to Paediatric Practice Acute Paediatric Program. In Module 4 – Respiratory (5th ed., p. 19). Queensland Health.

Emergency Care of Children Working Group. (2019b, December 23). Croup – Emergency guideline. Queensland Paediatric Emergency Care. <https://www.childrens.health.qld.gov.au/guideline-croup-emergency-management-in-children/>

Faan, P. R. P. M. H. J., & C(Inc), R. D. (2018a). Childhood Oxygenation Problems. In Wong's Nursing Care of Infants and Children (11th ed., pp. 902–903). Mosby.

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- Supporting consumer rights and informed decision making in partnership with healthcare practitioners including the right to decline intervention or ongoing management.
- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary.
- Ensuring informed consent is obtained prior to delivering care.
- Meeting all legislative requirements and professional standards.
- Applying standard precautions, and additional precautions as necessary, when delivering care.
- Documenting all care in accordance with mandatory and local requirements.

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