



# PEDIATRIC AIRWAY WHEEZING ASTHMA / BRONCHIOLITIS



## Escambia County, Florida - ALS/BLS Medical Protocol

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Wheezing is a whistling type breath sound associated with narrowing or spasm of the smaller airways.

Wheezing in the child under one year of age is usually the result of **bronchiolitis**, a viral infection of the bronchioles which causes prominent expiratory wheezing, clinically resembling asthma.

**Asthma** is a chronic inflammatory disease that is triggered by many different factors (eg. environmental allergens, cold air, exercise, foods, irritants, and certain medications). Asthma has a two-phase response. The first phase is associated with a histamine release, which causes bronchoconstriction and bronchial edema. Early treatment with bronchodilators may reverse the bronchospasm. The second phase consists of inflammation of the bronchioles and additional edema. The second phase will usually not respond to bronchodilators. An anti-inflammatory medication (eg. corticosteroid) is typically required.

Assessment of the asthma patient usually includes a history of asthma with associated medications. The patient will be tachypneic and may have an unproductive cough. Use of accessory muscles is evident and wheezing may be heard, most commonly on expiration.

In a severe asthma attack, the patient may not wheeze at all due to a lack of air flow.

### Supportive Care

1. [Medical Supportive Care](#) , including [pulse oximeter](#).

### ALS Level 1


2. [Albuterol](#) should be administered in a [nebulizer treatment](#) as follows:  
[Albuterol](#) (Ventolin) (if <1 year or <10 kg, mix 1.25 mg in 1.5 ml of Normal Saline {0.083% }; if >1 year or >10 kg, mix 2.5 mg in 3 ml of Normal Saline {0.083% }).
3. If bronchospasm continues, Albuterol (Ventolin) 1 nebulizer treatment (if <1 year or <10 kg, mix 1.25 mg in 1.5 ml of Normal Saline; if >1 year or >10 kg,



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mix 2.5 mg in 3 ml of Normal Saline).

4. If bronchospasm continues, Albuterol (Ventolin) 1 nebulizer treatment (if <1 year or <10 kg, mix 1.25 mg in 1.5 ml of Normal Saline; if >1 year or >10 kg, mix 2.5 mg in 3 ml of Normal Saline).
5. Consider need for assisted ventilation and/or [intubation](#).
6. If respiratory distress is severe, Epinephrine (1:1000) 0.01 mg/kg SQ (if <8 years, maximum dose is 0.3 mg; if >8 years, maximum dose is 0.3-0.5 mg).

### ALS Level 2 *(Physician Authorization Required)*


7. Repeat [Epinephrine](#) (1:1000) 0.01 mg/kg SQ.



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