

**ALBUTEROL SULFATE (PROVENTIL, VENTOLIN)****Description**

- Albuterol is a selective  $\beta$ -2 adrenergic receptor agonist. It is a bronchodilator and positive chronotrope.
- Because of its  $\beta$  agonist properties, it causes potassium to move across cell membranes inside cells. This lowers serum potassium concentration and makes albuterol an effective temporizing treatment for unstable patients with hyperkalemia.

**Indications**

- Bronchospasm
- Known or suspected hyperkalemia with ECG changes (i.e.: peaked T waves, QRS widening)
- **Crush or suspension injury with suspected hyperkalemia**

**Contraindications**

- Severe tachycardia is a relative contraindication

**Adverse Reactions**

- Tachycardia
- Palpitations
- Dysrhythmias

**Dosage and Administration****Adult:****Single Neb dose**

Albuterol sulfate solution 0.083% (one unit dose bottle of 3.0 mL), by nebulizer, at a flow rate (6-8 lpm) that will deliver the solution over 5 to 15 minutes. May be repeated twice (total of 3 doses).

**Continuous Neb dose**

In more severe cases, place 3 premixed containers of albuterol (2.5 mg/3ml) for a total dose of 7.5 mg in 9 mL, into an oxygen-powered nebulizer and run a continuous neb at 6-8 lpm.

**Pediatric:****Single Neb dose**

Albuterol sulfate 0.083% (one unit dose bottle of 3.0 mL), by nebulizer, at a flow rate (6-8 lpm) that will deliver the solution over 5-15 minutes. May be repeated twice during transport (total of 3 doses)

**Onset & Duration**

- Onset: 5-15 minute after inhalation
- Duration: 3-4 hours after inhalation

**Drug Interactions**

- Sympathomimetics may exacerbate adverse cardiovascular effects.
- $\beta$ -blockers may antagonize albuterol.

**How Supplied**

**MDI:** 90 mcg/metered spray (17-g canister with 200 inhalations)

**Pre-diluted nebulized solution:** 2.5 mg in 3 mL NS (0.083%)

## LFD MEDICATIONS

EMT	AEMT
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### **ALBUTEROL SULFATE (CONTINUED)**

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#### **Protocol**

- Asthma
  - COPD
  - Pediatric Respiratory Distress
  - Allergy and Anaphylaxis
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#### **Special Considerations**

- Consider inline nebs for patients requiring endotracheal intubation or CPAP.
- May precipitate angina pectoris and dysrhythmias
- Should be used with caution in patients with suspected or known coronary disease, diabetes mellitus, hyperthyroidism, prostatic hypertrophy, or seizure disorder
- Wheezing associated with anaphylaxis should first be treated with Epinephrine IM