


## BRONCHOSPASM

Bronchospasm may be the manifestation of several disease processes, most commonly asthma, chronic bronchitis, and emphysema (COPD). Physical examination reveals wheezing and prolonged expiratory phase of breathing. Respiratory Distress is categorized as follows:

- **Minimal Distress:** A slight increase in work of breathing with no wheezing or stridor evident.
- **Moderate Distress:** A considerable increase in work of breathing with wheezing and/or abnormal breath sounds evident.
- **Severe Distress:** Extreme work of breathing (retractions) with a decreased LOC.

- A. Perform **Initial Treatment / Universal Patient Care Protocol** and follow the proper protocol for medical management based on clinical presentation.
- B. If heart rate < 130 for adults or < 150 pediatrics:
  1. Administer **Albuterol** 2.5 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg (Combi-Vent / Duo-Neb) with oxygen 8 - 10 LPM. If **Ipratropium Bromide (Atrovent®)** is contraindicated or the patient is a pediatric, administer **Albuterol** only.
  2. Reassess vital signs and lung sounds.
  3. If distress is unrelieved and patient appears severe:
    - a. Expedite transport.
    - b. Administer a second dose of **Albuterol** 2.5 mg combined with **Ipratropium Bromide (Atrovent®)** 0.5 mg (Combi-Vent / Duo-Neb) with oxygen 8 - 10 LPM per **Medical Command**. If **Ipratropium Bromide (Atrovent®)** is contraindicated or the patient is a pediatric, administer **Albuterol** only.
    - c. If distress continues and patient is < 35 years of age and has no history of cardiac disease or hypertension, consider administration of **Epinephrine** 0.3 mg IM per **MCP order**.
  4. If distress is relieved:
    - a. Monitor vital signs and transport.
    - b. Notify **Medical Command**.

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- C. If heart rate > 130 for adults and > 150 pediatrics:
1. Confirm that patient's tachycardia appears to be from respiratory distress and not from other causes.
  2. If patient is < 35 and has no cardiac history:
    - a. Proceed with treatment as in "B" above.
    - b. Monitor patient's symptoms and vital signs very closely.
    - c. If any signs of increasing chest pain or cardiac symptoms develop, stop nebulizer, and treat per appropriate protocol.
    - d. **Contact Medical Command** for further treatment options. 
  3. If patient shows no improvement, consider use of CPAP or aggressive airway management.