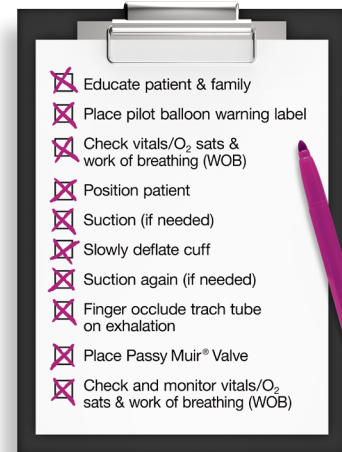


- I. **Physiologic Changes after Tracheostomy**
- II. **David Muir - Inventor**
- III. **Passy Muir® Valve Design**
 - a. The only bias-closed position, no-leak valve
 - b. Opens during inspiration
 - c. Closes at the end of inspiration and remains closed throughout expiration
 - d. With closure, a column of air is trapped in the tracheostomy tube
 - i. Acts as buffer against secretions entering the tracheostomy tube or Passy Muir Valve
 - ii. Redirects 100% of expiratory airflow around the tracheostomy tube and out through the mouth and nose
- IV. **Clinical Benefits of Restored Airflow and Positive Pressure**
 - a. Restores access to voice and ability to communicate
 - b. ADA and JCAHO Compliance
 - c. Eliminates need for finger occlusion or chin dropping
 - d. Restores airflow for return of sensation, taste, and smell
 - e. Restores sub-glottic pressure and may improve swallowing and reduce aspiration
 - f. May improve core strength and trunk control
 - g. May improve cough and reduce suctioning needs
 - h. Improves gas exchange
 - i. May facilitate lung recruitment and decrease risk of atelectasis
 - j. May expedite weaning and decannulation
 - k. Improves quality of life
- V. **Application of the Passy Muir® Valve**
 - a. Patient selection
 - b. Pre-placement guidelines
 - c. Application checklist
- VI. **Transitioning and Troubleshooting**
- VII. **Factors Affecting Expiratory Airflow**
- VIII. **The Family of Valves**
- IX. **Humidification**
- X. **Proper Care and Cleaning**
- XI. **Resources available at www.passymuir.com**



KEY POINTS FOR ASSESSMENT & PLACEMENT



Problem	Troubleshooting Tips
Excessive coughing	<ol style="list-style-type: none"> 1. Cue patient to clear secretions orally. 2. Suction again if needed. 3. Check trach alignment/positioning. 4. If no improvement, remove the Valve immediately. May need trach downsize or different trach type. 5. If coughing persists after trach change, may need ENT evaluation.
Honking noise with Valve use	<ol style="list-style-type: none"> 1. Clean the valve. 2. If no improvement: (a) work with the patient on how they are breathing with the Valve. If continue with no improvement, then (b) replace the Valve.
Limited or strained voicing, decreased airflow through upper airway	<ol style="list-style-type: none"> 1. Ensure cuff is fully deflated. 2. Check trach alignment and positioning. 3. Sit patient as upright as possible. 4. Suction again, if needed. 5. May need trach downsizing or different trach type. 6. Consider ENT consult, if no change noted.
Air leak around trach during Valve use	<ol style="list-style-type: none"> 1. Hydrophilic dressing 2. Silicone pad
Good airway patency but difficulty saturating	<ol style="list-style-type: none"> 1. Work with respiratory care practitioner. 2. Consider adding some O₂ via nasal cannula. 3. Work with patient on breathing techniques to increase deep breathing and coordination of respiration and speech with appropriate pausing.
Back pressure noted with Valve removal	<ol style="list-style-type: none"> 1. Trach downsize and/or cuffless trach may be needed. 2. Assess patient for anxiety, stress, or tension as potential causes. 3. If no improvement, consult ENT to evaluate for upper airway obstruction.
Patient would benefit from cuffless trach but remains on vent and needs a cuffed trach	<ol style="list-style-type: none"> 1. Consider tight to shaft cuff.