



Assessment & Placement GUIDE

Passy Muir®

Millions of Voices, ONE VALVE™

Passy Muir®

Tracheostomy &
Ventilator Swallowing
and Speaking Valves

All Passy Muir® Valves

- Are patented, bias-closed position, no-leak design.
- Are always closed until the patient inhales.
- Open easily and close automatically at the end of the inspiratory cycle without air leak and without expiratory effort.
- May restore communication, improve swallowing and oxygenation, and expedite weaning and decannulation.
- May be used interchangeably on or off the ventilator for both pediatric and adults (except PMV 2020 for metal Jackson).
- Are latex free and made in the USA.
- Were invented *by a patient for patients*



Passy Muir®
Millions of Voices, ONE VALVE™

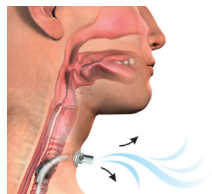
Physiological Changes after Tracheostomy

- Respiration:
 - Patient inhales and exhales through open trach tube.
 - No airflow past inflated cuff.
- Reduced airflow to the upper airway may:
 - Reduce sensation.
 - Affect vocal fold closure.
 - Reduce smell and taste.
 - Result in loss of voice.
- Inability to control secretions due to:
 - Decreased cough effort.
 - Pooling of secretions.
 - Loss of pharyngeal and laryngeal sensations.
- Reduced subglottic pressure may affect:
 - Swallow.
 - Cough.
 - Physiologic PEEP.
 - Valsalva maneuver.

Inhalation



Exhalation



Clinical Benefits of the Passy Muir® Valve

Clinical Benefits

The PMVs were developed to allow patients with tracheostomies and ventilator dependence to speak more normally. However, research has validated additional significant benefits with use of the PMV:

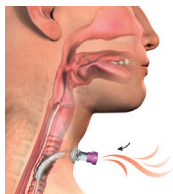
- Closed position no-leak design restores a closed respiratory system.
- Improves speech production.
- Improves swallowing and may reduce aspiration.
- Facilitates secretion management.
- Facilitates weaning.
- Expedites decannulation.
- Improves olfaction.
- Promotes better hygiene.
- Ventilator application.

For additional information and a complete list of benefits, scan this code, or visit the Passy Muir website:

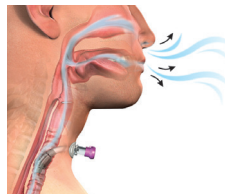


www.passymuir.com

Inhalation



Exhalation



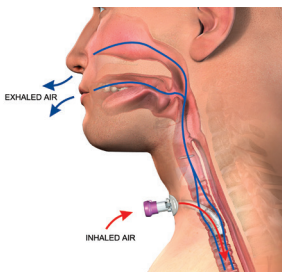
Quick Tips for Assessment, Placement, & Troubleshooting

Proper airway assessment, patient education, therapy, and a multidisciplinary team approach are keys to successful Passy Muir® Valve application.

Patient Selection

Awake and alert adult, pediatric, and neonatal patients with tracheostomies who:

- Are ventilator or non-ventilator dependent.
- Meet assessment guidelines.
- Have a patent airway with sufficient air passage around the tracheostomy tube and through the upper airway during exhalation.



Non-Ventilator Checklist

Carefully read all warnings, cautions, and instructions in the IFU prior to use.

Patient Selection Criteria:

- 1 Medically stable
- 2 Patent airway
- 3 100% cuff deflation
- 4 $FiO_2 \leq .50$



PMV® 2001
(Purple Color™)

Assessment Checklist:

- Educate patient, family, & staff.
- Place pilot balloon warning label.
- Check vitals, O₂ Sats, & WOB.
- Position patient.
- Suction, when needed.
- Slow cuff deflation.
- Perform upper airway assessment:
 - Finger occlusion, and if available, TTP
- Place Passy Muir Valve (PMV), if airway is patent.
- During use of Valve:
 - Monitor breathing & for signs of distress.
 - Monitor vital signs, O₂ Sats, & WOB.
- Remove Valve, if patient has significant changes in baseline parameters.
- Safe handoff practices.

Ventilator Checklist

Carefully read all warnings, cautions, and instructions in the IFU prior to use.

Patient Selection Criteria:

- 1 Medically stable
- 2 Patent airway
- 3 100% cuff deflation
- 4 $FiO_2 \leq .50$
- 5 Consider:
 - a. $PEEP \leq 10$ cm H₂O
 - b. $PIP \leq 40$ cm H₂O



PMV® 007
(Aqua Color™)

Assessment Checklist:

- Educate patient, family, & staff.
- Place pilot balloon warning label.
- Check vitals, O₂ Sats, & WOB.
- Position patient.
- Suction, when needed.
- Slow cuff deflation.
- Perform upper airway assessment:
 - With cuff deflation, check for upper airway leak.
 - Look for drop in VT_e or PIP.
- Place Passy Muir Valve, if airway is patent.
- During use of Valve:
 - Monitor breathing and for signs of distress.
 - Manage vent to ensure adequate ventilation and patient comfort:
 - PEEP, Sensitivity, VT, I-time.
 - Use safe alarm practices.
 - Monitor vital signs, O₂ Sats, WOB, & PIP.
- Remove Valve, if patient has significant changes in baseline parameters.
- Safe handoff practices.

Quick Tips for Assessment, Placement, & Troubleshooting

Some factors that may affect upper airway patency

- Trach tube size or type
- Upper airway obstruction
- Incomplete cuff deflation
- Edema
- Foam-filled cuff (absolute contraindication)

Assessment and treatment of common issues

Inadequate exhalation or breath stacking

- Check for complete cuff deflation.
- Suction trach tube and/or oropharynx.
- Reposition patient and/or trach tube.
- Retrain for normal breathing patterns.
- Assess need for downsizing trach tube.
- Consider direct visual assessment for airway obstruction.

Coughing

- Allow patient time to move secretions and get used to airflow changes.
- Suction patient, if needed.
- For persistent or dry cough, remove Valve and reassess.

Anxiety and Depression

- Use oral exhalation exercises.
- Solicit family involvement.
- Educate and use relaxation techniques.
- Consult recreational therapy, psychology, or clergy.

Weak voice

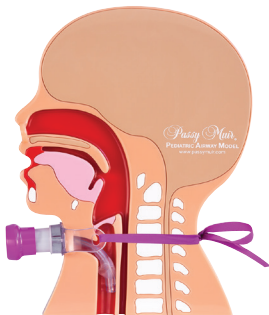
- Refer to ENT or Otolaryngologist.
- Glottic closure exercises.
- Diaphragmatic breathing exercises.

Pediatric Airway Differences

Anatomical Differences

As compared to an adult airway, an infant's airway passages are smaller, tiny amounts of tissue edema or obstruction can create a critical loss of airway. Airway assessment of the pediatric patient is critical considering:

- The tongue is larger within the oral cavity.
- Vocal folds are positioned with an anterior slant.
- Larynx is shorter and narrower than an adult larynx.
- Epiglottis in infants and young children is relatively long, floppy, and narrow.
- Narrowest portion of the airway is below the glottis in children under 10 years.



Considerations for Passy Muir® Valve Use with Infants and Children

Pediatric Considerations

- Used with neonates, infants, and children.
- Supports normal speech and language development.
- Facilitates child and caregiver interactions through vocalization.
- Facilitates life activities and socialization.
- Eliminates finger occlusion and chin drop for voicing.
- Reduces secretions and suctioning.
- Improves swallowing and may reduce aspiration.
- Assists with restoring a pressurized system.



Pediatric Therapy Techniques



Techniques

- PLAY! PLAY! PLAY!
- Build trust and rapport with child.
- Give play names to Valves and other respiratory equipment.
- Use dolls or stuffed animals with tracheostomy tubes and Valves.
- Provide verbal praise and rewards.

Activities to encourage oral exhalation

- Bubbles
- Pinwheels
- Whistles
- Straws
- Horns
- Cotton balls
- Kazoos



Activities to encourage voicing and speech

- Making vehicle or animal noises
- Singing
- Humming
- Imitation
- Reading
- Language play



Toby Tracheapuppet™

A therapist's partner
and a child's best friend

Featuring a pediatric tracheostomy tube and PassyMuir® Valve for demonstration and education, the Toby Tracheapuppet™ plush therapy puppet is ideal for interacting with young patients to facilitate vocalizations and therapeutic play.



www.passymuir.com



Accessories & Connections GUIDE

Passy Muir®

Millions of Voices, ONE VALVE™

David A. Muir

Passy Muir® Valve Inventor

Invented by a patient, for patients

Diagnosed with muscular dystrophy, David eventually became ventilator-dependent and, as a result, was unable to speak. He experienced firsthand the isolation and frustration caused by the loss of his voice. After months of being unable to communicate, David was determined not to suffer in silence, and from his wheelchair, he used his scientific background in engineering to invent a speaking Valve that could be used on and off the ventilator.

His personal experience fueled his passion and inspired him to find a way to help other patients with tracheostomies and ventilator-dependence through the use of his Valve.

David A. Muir
Inventor of the
Passy Muir® Valve



Passy Muir®
Millions of Voices, ONE VALVE™

Tracheostomy & Ventilator Swallowing & Speaking Valves

Passy Muir® Valves



PMV® 007 (Aqua Color™)

Designed for ventilator application with disposable tubing. May be used on or off ventilator.



PMV® 2001

(Purple Color™)

Lightweight, low profile, used on or off the ventilator with an adapter for in-line use.



PMV® 005 (white)

Original Passy Muir Valve. May be used on or off the ventilator with an adapter.



PMV® 2000 (clear)

Lightweight, low profile, recommended for outpatient use. May be used on or off the ventilator with an adapter.

Passy Muir® Valve Accessories

Passy Muir® Valve Oxygen Adapter PMA® 2000

The PMA® 2000 Oxygen Adapter snaps onto the PMV® 2000 and PMV® 2001 and allows for easy delivery of low flow supplemental oxygen and humidity.



PMV® 2001 with PMA® 2000

PMV® 2001
(Purple Color™)

PMA® 2000



PMV® Secure-It®

PMV® 2000
(clear)

The PMV® Secure-It® strap is designed for use with the 2000 series Valves and attaches the Valve to the trachea tie to prevent loss.



PMV® Secure-It®



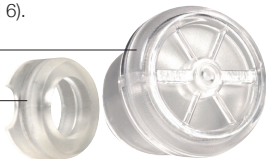
Passy Muir® Valves for Metal Tubes

PMV® 2020 (clear)

The PMV® 2020 (clear) with the PMA® 2020-S Adapter are for use with metal Jackson Improved Tracheostomy Tubes (Sizes 4, 5, and 6).

PMV® 2020 (clear)

PMA® 2020-S



Jackson Original
Tracheostomy
Tube



PMV® 2001
(Purple Color™)

The Jackson Original Tracheostomy Tube with Permanent 15 mm Adapter can accommodate all Passy Muir® Valves except the PMV® 2020.

Passy Muir Adapters

Ventilator Adapters



Passy Muir Adapter
Part # PMV-AD22
22mm Silicone Adapter
www.passymuir.com
800-634-5397



Passy Muir Adapter
Part # PMV-AD1522
15mm x 22mm Adapter
www.passymuir.com
800-634-5397

Non-Ventilator Adapters



DigiSil™ Adapter
Part # PM-OCLN
15mm Digital (Finger)
Occlusion Adapter
www.passymuir.com
800-634-5397



DB15™ Adapter
Part # PM-DB15
15mm Adapter for use
with duckbill style
tracheostomy tubes
www.passymuir.com
800-634-5397

Ventilator Connections

Dual-Axis Swivel _____

PMV® 007 _____
(Aqua Color™)

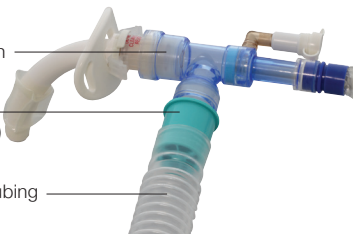
Standard
Disposable Tubing _____



In-line Suction
Catheter _____

PMV® 007 _____
(Aqua Color™)

Standard
Disposable Tubing _____

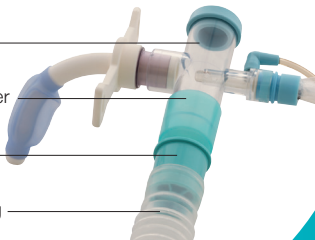


T-piece In-line
Suction Catheter _____

PMV® AD1522
Step Down Adapter _____

PMV® 007 _____
(Aqua Color™)

Standard
Disposable Tubing _____

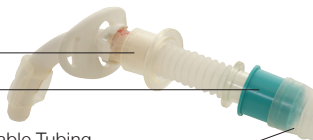


Ventilator Connections

Omni-Flex™

PMV® 007
(Aqua Color™)

Standard Disposable Tubing

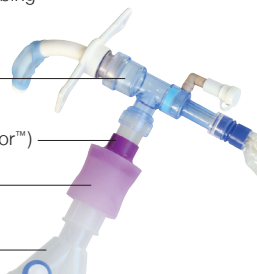


In-line Suction
Catheter

PMV® 2001 (Purple Color™)

PMV® AD22
22mm Silicone Adapter

Circuit Wye



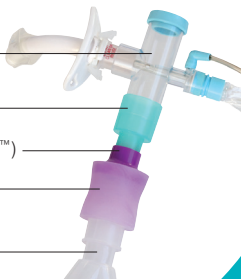
T-piece In-line
Suction Catheter

PMV® AD1522
Step Down Adapter

PMV® 2001 (Purple Color™)

PMV® AD22
22mm Silicone Adapter

Circuit Wye



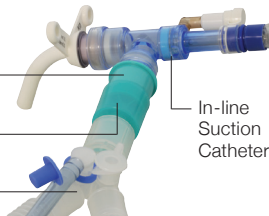
Pediatric Ventilator Connections

PMV® 007
(Aqua Color™)

PMV® AD1522
Step Down Adapter

Pediatric Circuit

In-line
Suction
Catheter



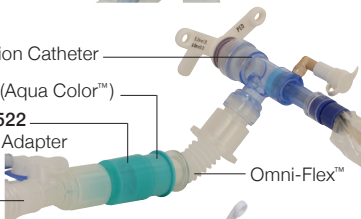
In-line Suction Catheter

PMV® 007 (Aqua Color™)

PMV® AD1522
Step Down Adapter

Pediatric
Circuit

Omni-Flex™



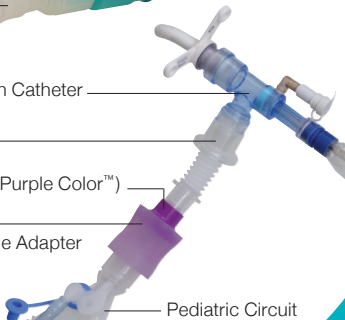
In-line Suction Catheter

Omni-Flex™

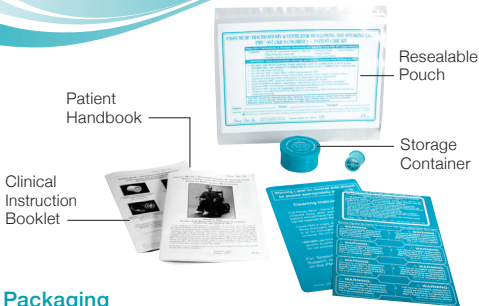
PMV® 2001 (Purple Color™)

PMV® AD22
22mm Silicone Adapter

Pediatric Circuit



Care & Cleaning of the Passy Muir® Valves



Packaging

Each Passy Muir® Valve comes packaged in a color-coded PMV® Patient Care Kit designed to facilitate proper use and maintenance of the Valve and to ensure patients and clinicians have complete product information and instructions.

Daily Cleaning Procedures

1. Swish Valve in pure soap and warm water.
2. Rinse Valve thoroughly in warm running water.
3. Allow Valve to air dry thoroughly before placing it in storage container.
4. DO NOT use hot water, peroxide, bleach, vinegar, alcohol, brushes, or cotton swabs to clean Valve.

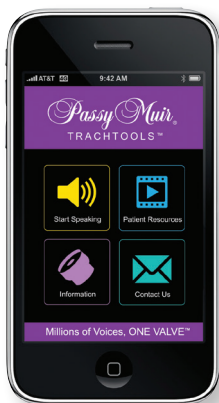


TRACHTOOLS™

Speech & Resources App

TRACHTOOLS™

Speech & Resources App



- User-friendly app for iPhone, iPad, and Android.
- Pre-recorded responses and phrases enable communication at the touch of a button, in English or Spanish.
- User-defined male, female, or child's voice.
- Easy to use features and navigation.
- Links to useful resources for both patient and clinician.
- Patient videos.

Available for **FREE** download at the App Store, Google Play, or www.passymuir.com/app

www.passymuir.com

Education & Clinical Support



Free Education

- Live Special Event Webinars
- Self-Study Webinars
- Free Continuing Education
- Free Clinical Resources



Educational Presentations

- State and National Conferences
- Society Meetings
- Seminars
- Colleges and Universities



Conversations on Aerodigestive Management Podcasts

www.passymuir.com/podcast



Aerodigestive Health Journal

www.passymuir.com/publications



Email your questions to:

info@passymuir.com



1 800 634 5397

Speech-Language Pathology and Respiratory Therapy Clinical Specialists are available to answer your questions



© PASSY-MUIR, INC. All rights reserved.

PASSY MUIR, PMA, PMV, SECURE-IT, TRACHEOSTOMY T.O.M., TOBY TRACHEASAURUS, TOBY TRACHEAPUPPET, TRACHTOOLS, the Aqua Color, and the Purple Color are trademarks of Passy-Muir, Inc.