



# Assessment & Placement GUIDE

*Passy Muir*®

Millions of Voices, ONE VALVE™

# Passy Muir®



# Quick Tips for Application of the Passy Muir® Valve

## All Passy Muir® Valves

Have the patented closed position “no-leak” design, which means the valve is always closed until the patient inhales. This allows the patient to create positive airway pressure and restores the patient to a normal closed respiratory system. The valve opens easily with less than normal inspiratory pressure and closes automatically at the end of the inspiratory cycle without air leak, and without patient expiratory effort.

Passy Muir Valves can be used interchangeably on or off the ventilator for pediatrics and adults. The closed position design also allows ventilator dependent patients to speak uninterrupted without having to wait for the ventilator to cycle, and without being limited to a few words at a time due to loss of air through the tracheostomy tube.



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# Clinical Complications of a Tracheostomy Tube with an Inflated Cuff

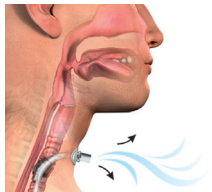
## Complications of an Inflated Cuff

- An inflated cuff can cause necrosis and trauma to the tracheal wall
- Laryngeal anchoring may interfere with epiglottis closure and airway protection during swallow
- Reduced airflow to upper airway:
  - Reduces sensation
  - Affects vocal fold closure
  - Reduces smell and taste
  - Results in loss of voice
- Reduced subglottic pressure affects:
  - Swallow
  - Cough
  - Physiologic PEEP
  - Valsalva maneuver

Inhalation



Exhalation

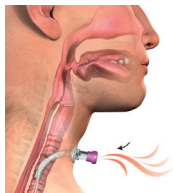


# Clinical Benefits of the Passy Muir® Valve

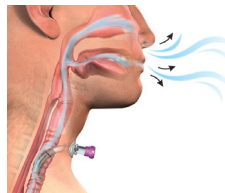
## Clinical Benefits

- Restores communication
- Improves swallowing and may reduce aspiration
- Restores natural positive airway pressure
- Facilitates secretion management
- Improves oxygenation
- Expedites ventilator weaning and decannulation
- Facilitates infection control
- Improves smell, taste and sensation

### Inhalation



### Exhalation



# Quick Tips for Assessment & Placement

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

## **Patient Selection**

- Awake and alert
- Medically stable
- Able to tolerate cuff deflation
- Manageable secretions
- Patent upper airway

## **Airway Assessment**

- Achieve full cuff deflation
- Occlude tube with gloved finger on exhalation
- Ask patient to voice or cough

## **Passy Muir® Valve Placement**

- Fits on universal 15mm tracheostomy tube hub
- Apply with quarter turn clockwise
- Monitor vital signs and work of breathing
- Increase wearing time as tolerated
- May use with humidity (non-medicated heated aerosol)
- Remove valve for medicated aerosol treatment

*Note: please affix Pilot Balloon Warning Label*

# Quick Tips for Assessment & Placement

## **Factors which 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
- 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 and psychological therapies

### **Weak voice**

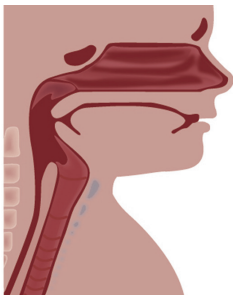
- Glottic closure exercises
- Diaphragmatic breathing exercises

# Pediatric Airway Differences

## Anatomical Differences

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

- The soft palate is larger
- The larynx is 2-3 cervical vertebrae higher
- The child's airway has a larger proportion of soft tissue and has less cartilaginous support
- An infant's airway is more prone to spasm and collapse





# Clinical Benefits

of Passy Muir® Valves  
for Infants and Children

## Pediatric Benefits

- Can be used as early as one to two weeks of age
- 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





# Toby's Kids

## Toby Tracheasaurus™ Program

If you are a tracheostomized or ventilator dependent patient using a Passy Muir® Valve, send us a photo of you wearing your valve, fill out a Toby Form, and we'll send you a FREE Toby Tracheasaurus™ Plush Toy!

Visit our website to learn more about our Toby Program and pediatric educational products.

- Toby Tracheasaurus™ Plush Toy
- The Toby Tracheasaurus™ & Friends Coloring & Activity Book with crayons
- The Toby Tote™ which includes oral exhalation and reward toys



[www.passy-muir.com](http://www.passy-muir.com)

# TRACHTOOLS™

Speech & Resources App

## TRACHTOOLS™

Speech & Resources App



- User-friendly app for iPhone, iPad and Android
- Pre-recorded responses and phrases enable communication at a touch of a button
- User-defined male or female voice
- Easy to use features and navigation
- Links to useful resources for both patient and clinician
- Patient videos
- Child voice option

Available for **FREE** download  
at the App Store, Google Play or  
[www.passy-muir.com/app](http://www.passy-muir.com/app)

[www.passy-muir.com](http://www.passy-muir.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 at age five, David gradually weakened and became a quadriplegic. At age twenty-three while studying biochemical engineering, he suffered respiratory arrest and became ventilator dependent. It was during those three agonizing months while on a ventilator and being unable to speak, that David came up with the idea for his speaking valve. In the years since, David's valve has restored the voices of millions of people and helped to improve their quality of life.



David A. Muir  
Inventor of the  
Passy Muir® Valve

*Passy Muir*®  
Millions of Voices, ONE VALVE™

# Accessories & Connections Guide

for the Passy Muir® Valves

## All Passy Muir® Valves

- Have the patented closed position “no leak” design
- Are designed to fit the universal 15mm hub of tracheostomy tubes including neonatal and pediatric tubes
- Can be used interchangeably by all tracheostomy patients, pediatric and adult, non-ventilator and ventilator, with the exception of the PMV® 2020



*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



**PMV® 2001**  
(Purple Color™)  
Low profile design with  
lower resistance,  
recommended for  
inpatient use



**PMV® 005** (white)



**PMV® 2000** (clear)  
Low profile design with  
lower resistance,  
recommended for  
outpatient use



# 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

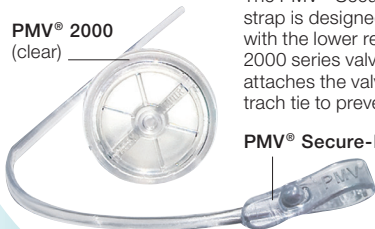


## PMV® Secure-It®

PMV® 2000  
(clear)

The PMV® Secure-It® strap is designed for use with the lower resistance 2000 series valves and attaches the valve to the trach tie to prevent loss.

PMV® Secure-It®



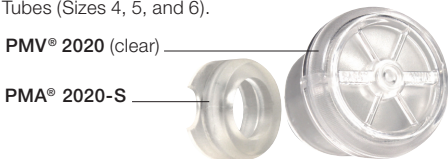
# Passy Muir® Valves for Metal Tubes

## 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.

# Ventilator Adapters

## Passy Muir Adapter

Part # PMV-AD1522  
15mm x 22mm Adapter  
[www.passy-muir.com](http://www.passy-muir.com)  
800-634-5397



## Passy Muir Adapter

Part # PMV-AD22  
22mm Silicone Adapter  
[www.passy-muir.com](http://www.passy-muir.com)  
800-634-5397



AirLife® Omni-Flex™  
Adapter



Dual-Axis  
Swivel Adapter

[www.passy-muir.com](http://www.passy-muir.com)

# Ventilator Connections

Dual-Axis Swivel \_\_\_\_\_

**PMV® 007** \_\_\_\_\_  
(Aqua Color™)

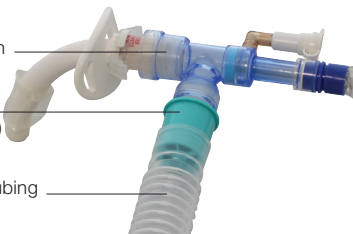
Standard  
Disposable Tubing \_\_\_\_\_



In-line Suction  
Catheter \_\_\_\_\_

**PMV® 007** \_\_\_\_\_  
(Aqua Color™)

Standard  
Disposable Tubing \_\_\_\_\_

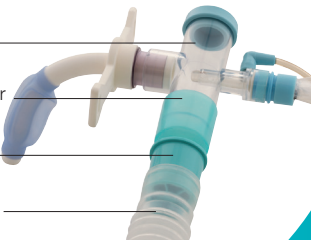


T-piece In-line  
Suction Catheter \_\_\_\_\_

**PMV-AD1522**  
Step Down Adapter \_\_\_\_\_

**PMV® 007** \_\_\_\_\_  
(Aqua Color™)

Standard  
Disposable Tubing \_\_\_\_\_

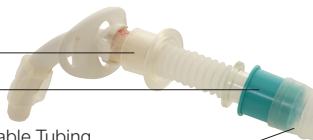


# Ventilator Connections

Omni-Flex™ \_\_\_\_\_

**PMV® 007**  
(Aqua Color™) \_\_\_\_\_

Standard Disposable Tubing \_\_\_\_\_

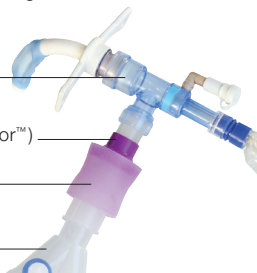


In-line Suction \_\_\_\_\_  
Catheter \_\_\_\_\_

**PMV® 2001** (Purple Color™) \_\_\_\_\_

**PMV-AD22** \_\_\_\_\_  
22mm Silicone Adapter \_\_\_\_\_

Circuit Wye \_\_\_\_\_



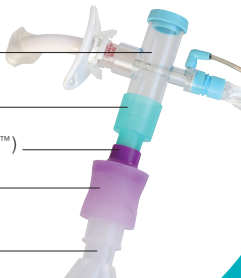
T-piece In-line \_\_\_\_\_  
Suction Catheter \_\_\_\_\_

**PMV-AD1522** \_\_\_\_\_  
Step Down Adapter \_\_\_\_\_

**PMV® 2001** (Purple Color™) \_\_\_\_\_

**PMV-AD22** \_\_\_\_\_  
22mm Silicone Adapter \_\_\_\_\_

Circuit Wye \_\_\_\_\_



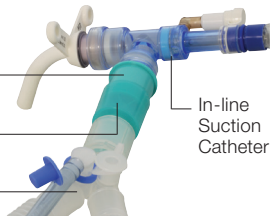
# Pediatric Ventilator Connections

**PMV® 007**  
(Aqua Color™)

**PMV-AD1522**  
Step Down Adapter

Pediatric Circuit

In-line  
Suction  
Catheter



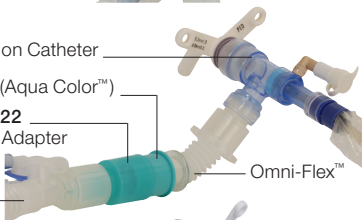
In-line Suction Catheter

**PMV® 007** (Aqua Color™)

**PMV-AD1522**  
Step Down Adapter

Pediatric  
Circuit

Omni-Flex™



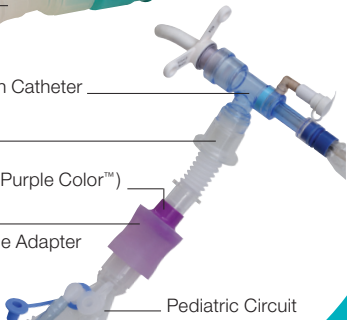
In-line Suction Catheter

Omni-Flex™

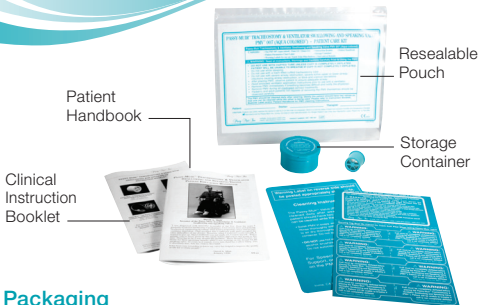
**PMV® 2001** (Purple Color™)

**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.



# Education & Clinical Support



Webinars

- Live Special Events Webinars
- Self-Study Webinars
- Free CEUs
- Free Clinical Resources



Live Presentations

## Educational Presentations

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



Email Us

Email your questions to:

[info@passy-muir.com](mailto:info@passy-muir.com)



Call Us

**1 800 634 5397**

Speech and Respiratory Clinical Specialists are available to answer your questions

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