



# Clinical Complications of Tracheostomy

## **Complications of an Inflated Cuff**

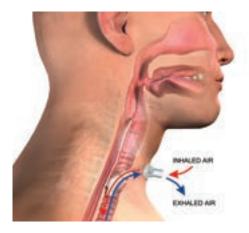
- An inflated cuff can cause necrosis and trauma to the tracheal wall
- Laryngeal anchoring may interfere with epiglottic inversion and airway protection during swallow
- Reduced airflow to upper airway:
   Reduces sensation
   Affects vocal fold closure
   Reduces smell and taste
   Results in loss of voice
- Reduced subglottic pressure may negatively affect:

Swallowing

Coughing

Generating Physiologic PEEP

Breath holding

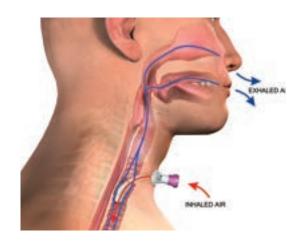


# Clinical Benefits of the Passy-Muir® Valve

#### **Clinical Benefits**

- Improves speech production
- 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
- Facilitates pediatric speech/language development



# Quick Tips for Assessment & Placement

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

## **Patient Selection**

- Alert, oriented and attempting to communicate
- Medically stable
- Able to tolerate cuff deflation
- Able to manage 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 hub of tracheostomy tubes
- 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



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# Quick Tips for Assessment & Treatment

# Factors Which May Affect Upper Airway Patency

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

#### **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/or 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
- · Expiratory muscle strength training

# Therapy Techniques

## **Activities to Encourage Oral Exhalation**

- Bubbles
- Whistles
- Horns
- Kazoos
- Pinwheels
- Straws
- Cotton balls
- Expiratory muscle strength training exercises



# Activities to Encourage Voicing and Speech

- Singing
- Humming
- Counting
- Talking on the phone
- Prolonging vowels

# Education & Clinical Support



Speech and Respiratory Clinical Specialists are available to answer your questions

1-800-634-5397



Email your questions

info@passy-muir.com

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