

# TRACHEOSTOMY CARE

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# AUDIENCE

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This presentation is intended for School nurses and other school staff that will be assisting children that have a tracheostomy tube.

*Welcome Dallas ISD Teachers and Staff!*

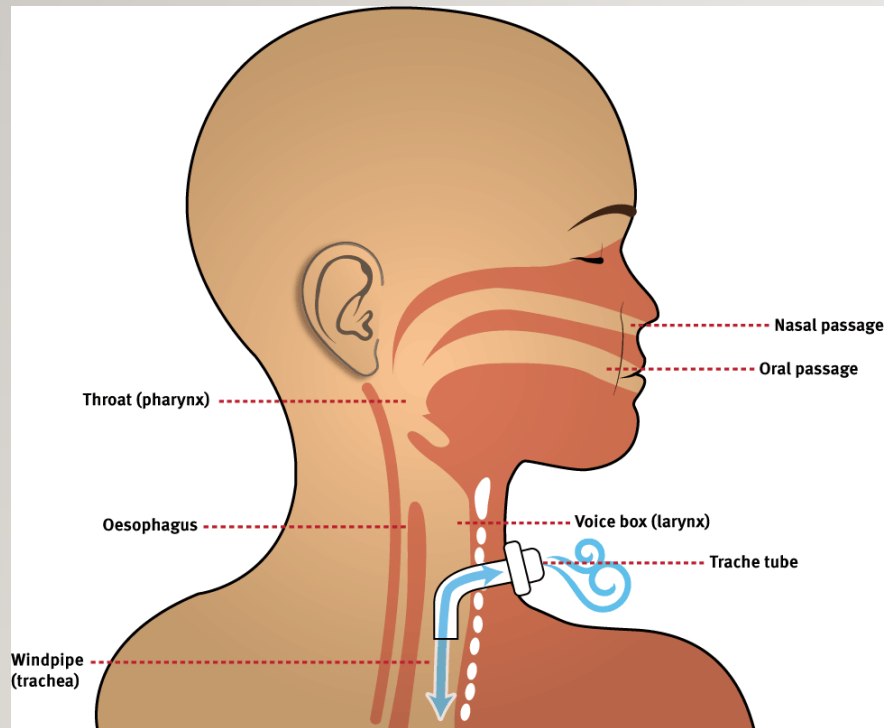
# OBJECTIVES

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- The Learner will understand the purpose of the tracheostomy.
- The Learner will understand necessity of humidity and risk of mucus plugs
- Learners will understand the method and necessity of suctioning a tracheostomy
- The learner will become aware of the steps for tracheostomy change
- Participants will learn basic safety with trachs, and how to deal with common emergencies.
- Learner will know when to hand ventilate and when to call 911

# WHAT IS THE PURPOSE OF A TRACH TUBE?

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- Provides an air passage for breathing when the usual route is somehow blocked or reduced.
- Helps air and oxygen reach the lungs by creating an opening into the trachea (windpipe) from outside the neck.
- Provide a route to breathe for those who will need to be on a breathing machine (ventilator) long term.

# TYPES OF TRACH TUBES

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Pilot –used to fill cuff (balloon)

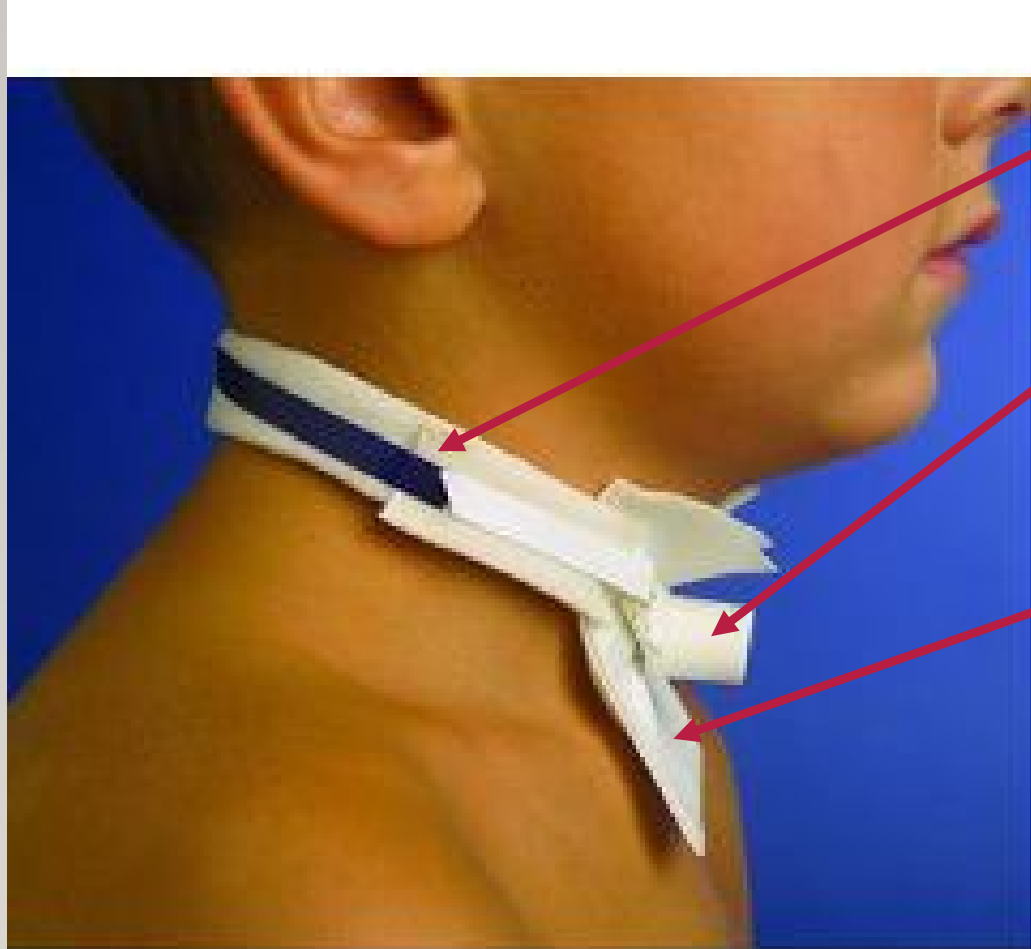


“Cuffed” (balloon)

Faceplate visible on outside on all trachs



“Unuffed” (no balloon)



Velco trach tie keeps trach in place (should be able to get two fingers under). If too loose, trach could come out.

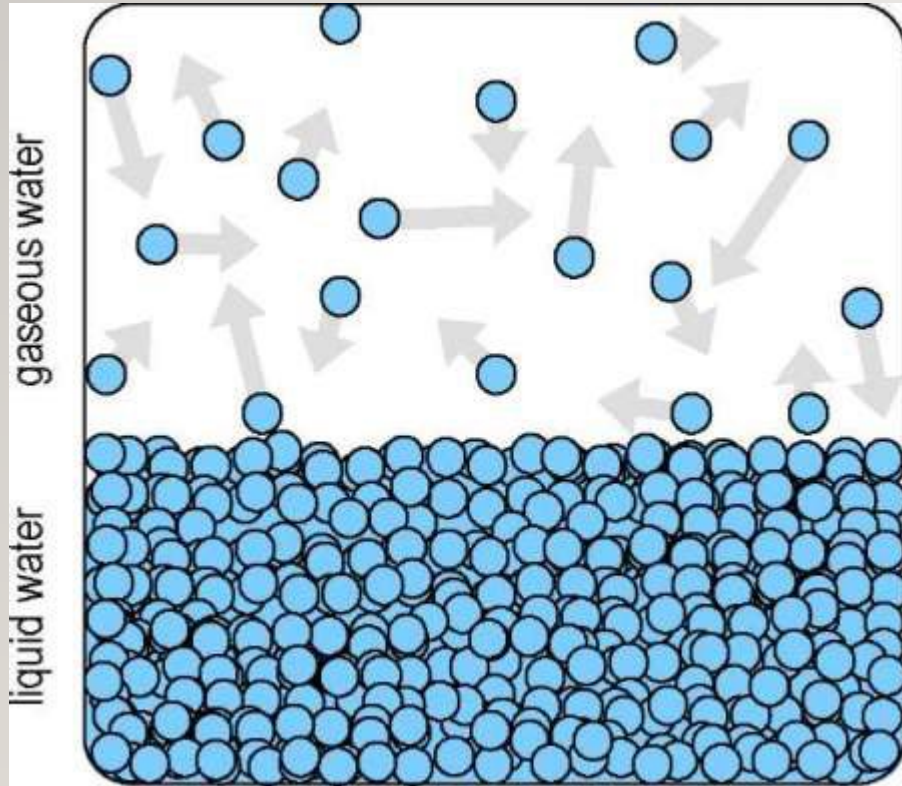
End of trach tube, can attach to ventilator, HME, passey muir speaking valve, or other

Gauze pad for drainage (optional). Around trach and behind faceplate.



● Heat Moisture Exchanger (HME)

# NECESSITY OF HUMIDITY WITH THE TRACH



- The nose and mouth provide warmth, moisture and filtration for the air we breathe. Having a tracheostomy tube, however, bypasses these mechanisms. Humidification must be provided to keep secretions thin and to avoid mucus plugs.
- A mucus plug is a solidified collection of mucus that blocks a major airway of the lungs or the trach tube.
- Proper humidity will keep the secretions thin so they are easy to coughed or be suctioned out of the trach.



# METHODS OF ADDING HUMIDITY FOR THE TRACH AND LUNGS

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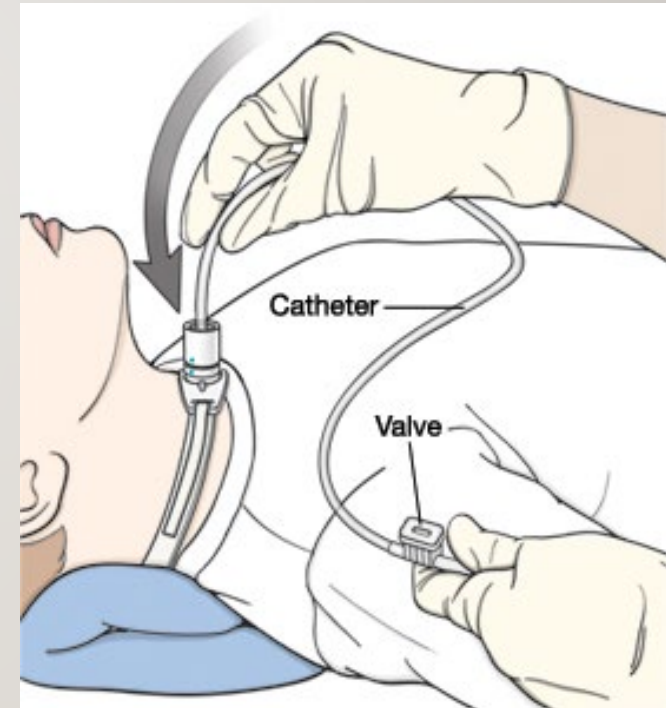
- Drops of Normal Saline down the trach
- Heat Moisture Exchanger (HME)
- Heated humidifier component to the breathing machine (Ventilator)
- Nebulizer treatment



# IMPORTANCE OF SUCTIONING THE TRACH

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- Removes thick mucus and secretions from the trachea and lower airway that you are not able to clear by coughing.
- Suctioning allows for rapid clearing of secretions and prevents the airway from becoming blocked. Suctioning usually leads to an improvement in breathing.
- Suctioning a trach tube can help keep tracheostomy patients healthy, clear the airway, and reduce the risk of serious infections.



# STEPS FOR SUCTIONING THE TRACH USING PORTABLE SUCTION MACHINE

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1. When possible, keep suction machine plugged in to maintain full battery.
2. Turn power switch on
3. Test vacuum pressure (prior to using on student) by occluding suction machine tubing. Observe negative pressure of roughly 160
4. Place appropriately sized suction catheter for trach size on suction machine tubing
5. Ask the student to cough

# CONTINUED STEPS FOR SUCTIONING THE TRACH USING PORTABLE SUCTION MACHINE

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6. Advance suction catheter to proper depth inside trach tube
7. Apply suction by occluding thumb port
8. And withdraw suction catheter in a swivel method (catheter should be out of trach 5 seconds or less)
9. Rinse catheter by inserting into cup supplied with suction kit filled with distilled water or sterile normal saline.
10. Suctioning may and will often be repeated more than once. Allow the student to recover between suction passes.

# REASONS FOR CHANGING THE TRACH TUBE

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- Routinely- the parents change their child's trach tube one a week and swap it out for the same size to allow them to clean the inside of the trach tube.
- Emergently- the trach accidentally come out of the airway or is mal-positioned or the trach becomes occluded with thick mucus that is unable to be coughed or suctioned out.

# STEPS TO CHANGING EXISTING TRACH TO NEW TRACH

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1. Lay the student flat and use a rolled blanket to create a shoulder roll.
2. Place the obturator in new trach
3. If trach has a cuff, deflate cuff using syringe, evacuating all the air or water from the balloon.
4. If trach tie are felt with velcro, detach in the back of the neck. If the ties are string or rope they must be cut with blunt tip scissors.
5. Remove existing trach
6. Replace with new trach. Insert trach into stoma where the end curves down toward the lungs.

# CONTINUED STEPS TO CHANGING EXISTING TRACH TO NEW TRACH

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7. Remove the obturator while holding the trach in the stoma.
8. Inflate the cuff if necessary
9. Secure the trach with new trach ties.
10. Trach ties should be snug enough that only two fingers fit between the neck and the ties.
11. Be prepared to suction as the procedure stimulates a cough.

# THINGS TO AVOID WITH A TRACH

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- Excessive water around trach stoma
- Glitter
- Aerosol
- Smoke
- Dust
- Long hair fur (stuffed animals)
- Any debris that can enter stoma





# WHEN TO HAND VENTILATE AND/ OR CALL 911

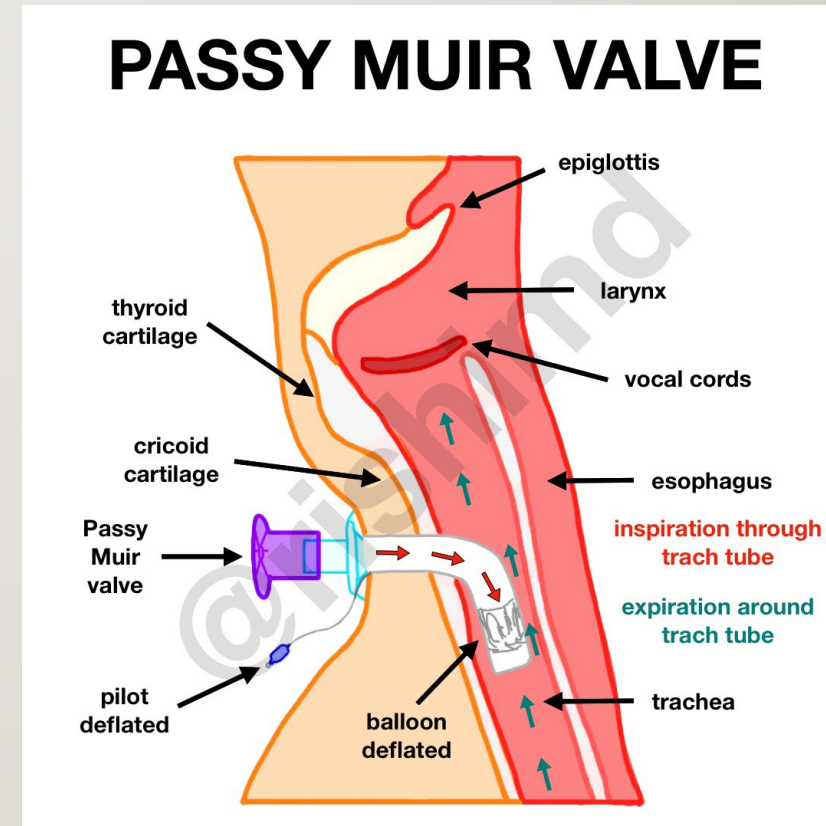
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- Loss of consciousness
- No breathing is observed
- Inability to get the trach in the stoma during change
- Skin color pale or blue

# PASSEY MUIR SPEAKING VALVE

- An accessory placed on the end of the trach tube
- A one-way valve that directs air up and out the mouth and nose instead of out through the end of the trach tube.
- Easily removed in case of distress
- If student can't speak, remove valve.
- Never used with an inflated balloon



# IT NEEDS TO BE SAID...

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- Never place food or beverages in the trach tube. The tube goes the lungs, not the stomach.