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## Tracheostomy Care: Caring for a Student with a Trach Tube

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# Tracheostomy Care

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Caring for a Student with a Tracheostomy Tube

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**Children's**<sup>SM</sup>  
Healthcare of Atlanta  
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# Reflection

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As you go through this video, please pause to review the content and think about how you would apply this information to your school setting.



# Audience

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The audience for this video is Georgia school personnel who care for students with a Trach Tube.



# Tracheostomy Care

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Ties

Resuscitate

Ambu bag resuscitator bag

Clear airway

Humidity

Emergency CPR

O2 tank

Suction

Trach tubes

Obturator (Guide)

Medical Team

You

- The student with a trach tube, at the time of creation of this video, in Georgia, usually has a one to one caregiver assigned to him or her.
- The medical doctor, nurse practitioner or physician's assistant writes an order stating that either a licensed nurse is needed, or a trained paraprofessional is required to stay with the student.



# Introduction

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This educational video is meant to show you:

- Trach tube types and ties
- Travel Bag (Emergency Equipment)
- Devices used to humidify and warm the air
- Devices for speaking
- How the trach tube is inserted (into a manikin)
- How to suction a student with a trach tube
- Use of an emergency resuscitator bag
- Performance of CPR on a manikin with a trach tube
- Signs of trouble breathing



# What is a Tracheostomy?

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tra·che·ot·o·my

/, trākē'ädəmē/

noun **MEDICINE**

noun: tracheostomy



A **tracheostomy** (*trach*) is a small surgical opening through the skin and tissue into the trachea (windpipe) in the neck, which allows air to go in and out of the lungs.

- The opening in the neck is called the **stoma**.
- A small plastic tube, called a **tracheostomy tube** or **trach tube** is placed through this opening to aid in the maintenance of the airway.
- There are various types of tracheostomy tubes which are held in place with ties around the neck.





# Why does this student need a trach tube?

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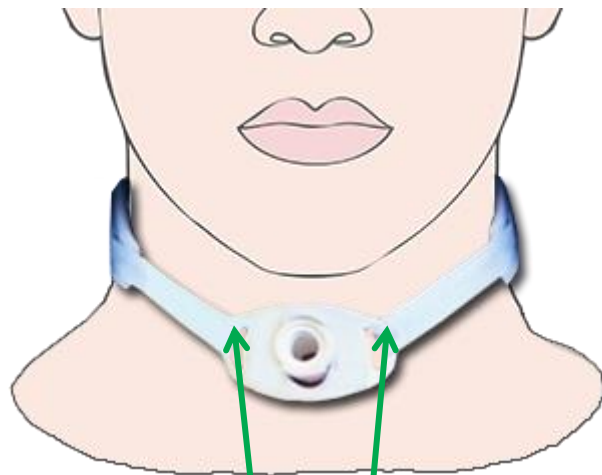
- **“Blockage”** in the airway -> air can not get to lungs
  - If the MD can not fix it surgically: A trach tube is needed for breathing
- **Premature babies** -> lungs are not fully formed
  - they require a ventilator.
  - the ventilator brings the air to the “trach tube”
- **Muscle Weakness** -> lungs require assistance
  - the trach tube is the **“passage for air”** from the ventilator tubing – to reach the child’s lungs



# Tracheostomy Views

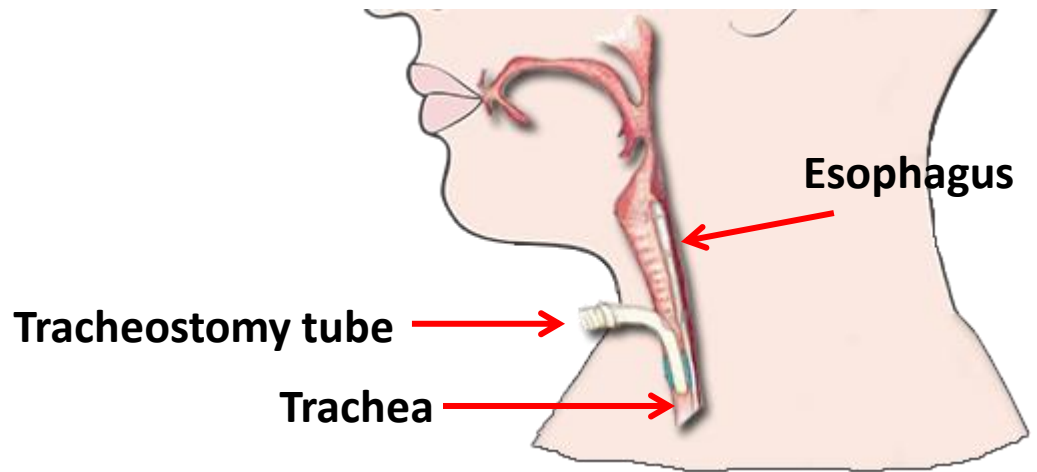
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**FACE-TO-FACE**



**Strap (ties) to secure tracheostomy tube**

**SIDE VIEW**



# Tracheostomy Tube

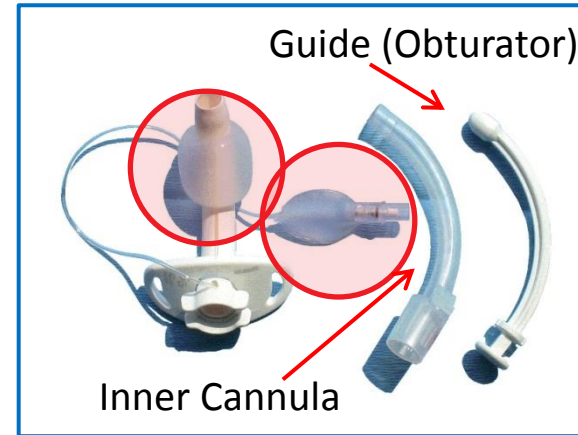
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Tracheostomy tubes are available in a variety of materials, sizes and styles. Most tracheostomy tubes are made of either plastic, silicone or metal.


Tracheostomy tubes come in two basic styles: cuffed and uncuffed. A cuff is a balloon-like part, when inflated (blown up), acts as a seal to prevent airflow through the mouth and nose. All cuffs serve the same purpose— to prevent leakage of air out of the lungs and to prevent leakage of fluids into the lungs.



# Types of Tracheostomy Tubes



Guide (Obturator)



Example of a trach tube without the balloon, or without the cuff.



# Cleaning & Dressing

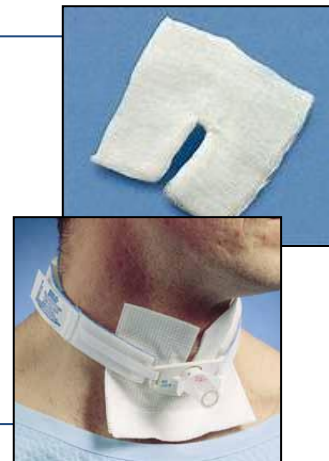
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It is important to keep the neck and the trach tube clean. To do this:

- Neck care should be done at least once a day and as needed.
- Tracheostomy care should be done at home by the caregivers.
- The trach tube should be changed once a week.

## Tracheostomy Dressing

Some trach tubes have dressing around them that is used to protect the skin. The dressing should be changed when doing trach care or as needed. Trach dressings should not be moist or soiled.



# Trach Ties

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## Tracheostomy Ties

The trach tube ties are used to keep the trach tube in place to prevent accidental removal and to minimize movement of the trach tube.



The ties should be changed daily with trach care or as needed.

They should not be moist or soiled.



# Travel Bag - Demo

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A student with a trach tube needs to bring a travel bag with him/her. Inside it should contain:

- a spare trach tube of the same size
- a smaller sized trach tube
- suction machine and suction catheters
- saline vials
- resuscitator bag and mask
- trach tube ties
- water soluble lubricant (as KY Jelly)



# VIDEO

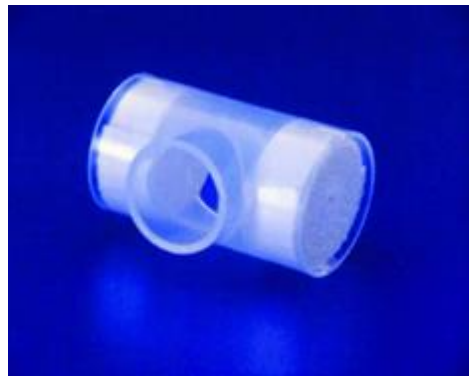
## Travel Bag



# Humidify & Speaking Valve - Demo

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It is important to replace the lost functions of the upper airway in order to keep secretions humidified and loose. If student is not connected to the ventilator they may have a Heated Trach collar, a Thermovent HME or a Passy-Muir valve (PMV). If student has trouble breathing, falls asleep, or needs suctioning, remove the PMV.



VIDEO

Humidity-Speaking Valve

# Suctioning

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## Suctioning:

- Coughing is important to clear out secretions from the airway.
- Some patients with respiratory illness have weak coughs and have difficulty moving the secretions out.
- Secretions can obstruct their airway making it difficult for the lungs to get the oxygen they need.
- Suctioning removes the secretions from the airway which will allow the patient to breathe better.



# Suction Machine & Catheter

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## The Suction Machine:

Suction machines have negative pressure when applied to the airway. The device is to remove the mucus that rapidly accommodates inside the tracheostomy tube.



## Suction Catheter:

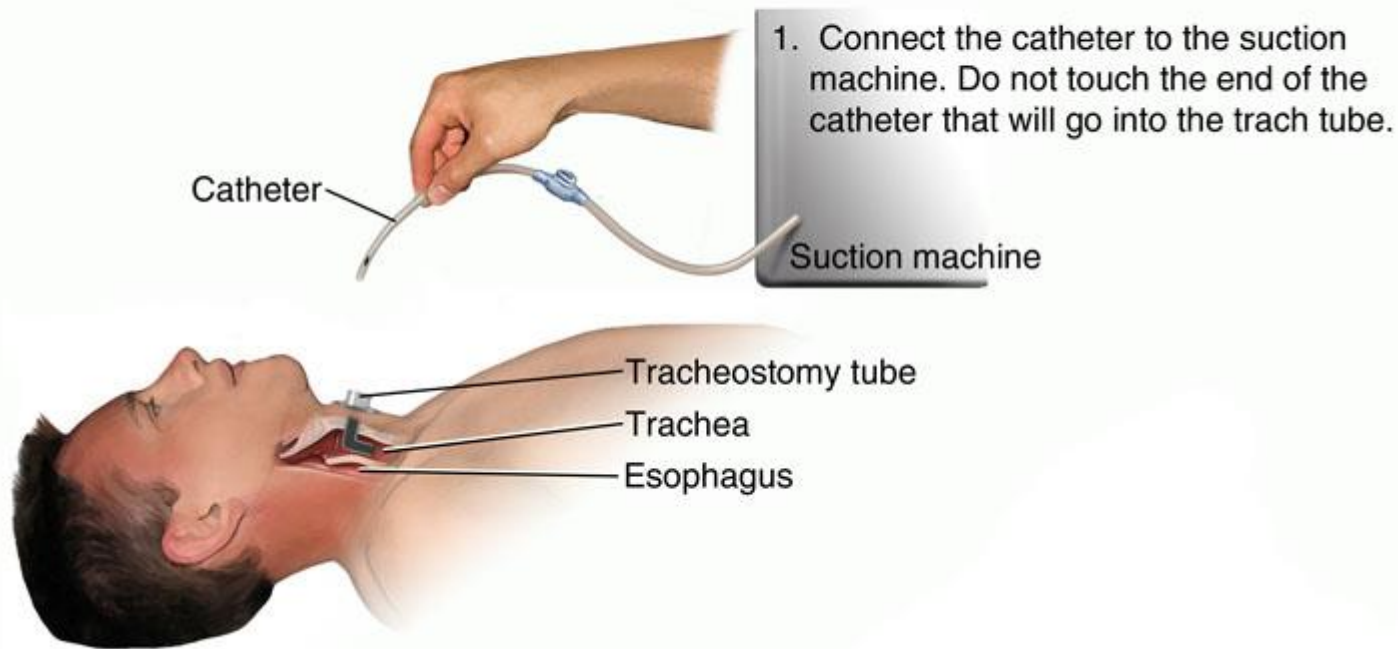
A suction catheter must be attached to the suction machine to work. The suction catheter enters the tracheostomy tube and catches or traps the mucus. Suctioning the tracheostomy tube maintains a cleaner, patent airway.



# How to Suction a Trach Tube – Step 1

Universal precautions state to use gloves when suctioning anyone who has a trach tube.

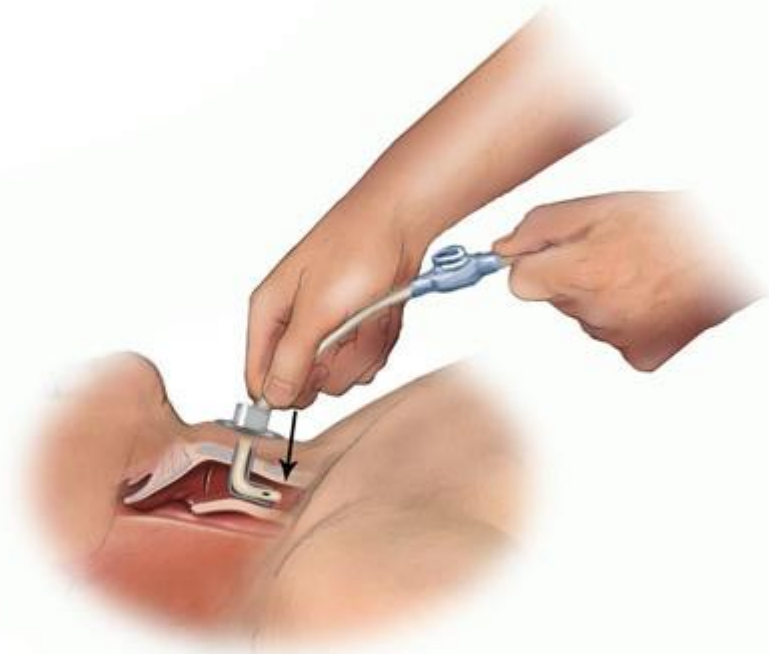
## How to Suction a Tracheostomy Tube



# How to Suction a Trach Tube – Step 2

**Universal precautions state to use gloves when suctioning anyone who has a trach tube.**

2. Insert the catheter the proper distance into the trach tube (usually the length of the trach tube plus 1/4 inch).



# How to Suction a Trach Tube – Step 2

**Universal precautions state to use gloves when suctioning anyone who has a trach tube.**



3. Apply suction by putting your thumb over the hole in the catheter while you gently pull the catheter out. Gently roll the catheter between your thumb and forefinger as you pull the catheter out. Ask your healthcare provider how long you should suction.



# How to Suction a Trach Tube – Demo

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# VIDEO

## Suctioning

# Emergency Tracheostomy Tube Change

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An Emergency trach tube change consists of:



-Removal of trach tube



-Reinsertion of clean trach tube

- The stoma wont close up immediately without a trach tube inside.
- Trach tubes are changed at home every week by the parent\caregiver.
- If the child removed his trach tube by accident, simply put it back in.



VIDEO

Emergency Trach  
Resuscitator Bag

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# CPR for a Student with a Trach Tube

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Call **911**

- Give **2 breaths** with the resuscitator bag (to the **trach!**)

*Check for a pulse. If there is no pulse:*



Perform - **30 compressions**  
- **give 2 breaths**

**Repeat, until 911 personnel arrive.**

**If there is a pulse...do not perform compressions.**

- Give one breath every 3-5 seconds.

This is called “**Rescue Breathing.**”



# VIDEO

## CPR/Resuscitator

# Become Familiar with Your Student

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- Learn about the student's condition\diagnosis and any problems associated with it.
- Student baseline status ( color, respiratory rate, pulse, secretions and work of breathing).
- Student's care requirements: how often do they require suction or any special positioning.
- Is student prone to emergencies?
- Type of tracheostomy tube used.
- Devices to warm or moisturize the air to prevent mucous from becoming too thick.
- Travel bag contents.
- Any staffing needs necessary to provide care for the student.
- Means of communication with the parents or homecare givers and at school.



# Signs of Respiratory Problems

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## Signs of Respiratory Distress

Breathing too fast or too slow

Heart rate: too fast not his\her normal

Noisy breathing

Nostrils Flaring

Poor color (blue or gray) specially around lips.

Sweating on forehead

Frightened look in eyes

Chest sinking in

Continuous cough

Low oxygen level on pulse oximeter machine

Increased accessory muscle use



# What to Do?

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If you are trying to replace the trach tube and it doesn't go in try the smaller one. If it still doesn't go in occlude the stoma and use the resuscitator bag\ambu bag and mask to ventilate the patient.



1. Suction the student.
2. If the student is not better, change child's trach tube.
3. If the student is still not better, use resuscitator bag to administer oxygen if available.
4. If the student is still not better, call 911.





# Summary

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# Resources

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For more information/further training, please visit [www.choa.org/schoolhealth](http://www.choa.org/schoolhealth)

## Other resources

- [www.nhlbi.nih.gov/health/health-topics/topics/trach](http://www.nhlbi.nih.gov/health/health-topics/topics/trach)
- [www.healthline.com/health/tracheostomy](http://www.healthline.com/health/tracheostomy)
- [www.hopkinsmedicine.org](http://www.hopkinsmedicine.org)
- [www.mayoclinic.org/tests-procedures/tracheostomy](http://www.mayoclinic.org/tests-procedures/tracheostomy)
- <https://medlineplus.gov>



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For more information on this topic:

- Visit us at: [www.choa.org](http://www.choa.org)
- Call us at: (404) 785-KIDS

