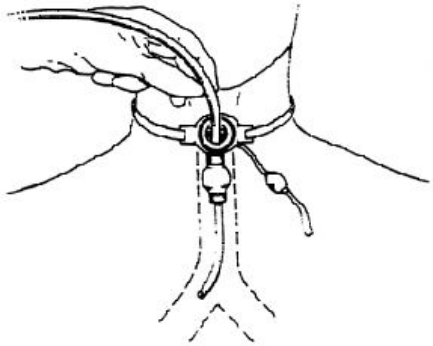
Pediatric Suctioning

A child may leave the hospital with a *tracheostomy* (trach) tube in their neck. The trach admits air and removes secretions. The trach may be connected to a breathing machine all the time or for certain periods. Since the mouth and nose are no longer used for breathing, saliva and mucus build up in the windpipe and must be removed by suctioning. Removing mucus and other fluids keeps the airway clear. This helps the child breathe better.



Suctioning is only one part of the challenge of caring for a child with a trach outside the hospital. Ask how to use all the equipment that you will use at home. Ask your caregiver how to use an Ambu bag. Have a plan for power failure or running out of supplies. Practice until you are sure you can care for your child on your own.

RISKS & COMPLICATIONS OF SUCTIONING

Most suctioning procedures are quick and without side effects. Possible problems include:

- Damaging the airway in the lungs.
- Suctioning too long and lowering the oxygen level in the blood.
- Bleeding seen in the tube or around the tube.
- Accidental removal of the breathing tube or tracheostomy tube while suctioning.

HOME CARE INSTRUCTIONS

For those children with a tracheostomy, keep the area around the opening in the neck clean to help prevent infection. Clean around the opening (stoma) at least twice a day as described below. If a smell or odor develops around the neck or opening, clean the area every 8 hours until the odor is gone.

Procedure For Suctioning

- Ask your caregiver what catheter size should be used when suctioning the tracheostomy.
- Wash hands.
- Put on gloves.
- Attach suction catheter to suction machine.
- Have your child take 3-4 deep breaths before suctioning.
- With your thumb off the thumb hole, gently insert the catheter into the tracheostomy tube (or the breathing tube connected to the ventilator) until it reaches the end of the tube or until coughing begins.
- Cover the thumb hole on the catheter to suction.
- Slowly remove the catheter while rolling it between the thumb and forefinger. Also pulse the suctioning by covering and uncovering the thumb hole of the catheter. (*Start to finish should take no longer than 10 seconds.*)
- If there is a need to suction again, rinse the catheter first and have the child take another 3-4 deep breaths, then repeat the suctioning. (*Allow enough time between each catheter insertion for normal breathing or for the ventilator to re-oxygenate the child.*) Intense bouts of coughing during and after suctioning are common.
- If the mucus that has been suctioned appears infected (yellow or green with bad odor) or there is bright red bleeding, call your caregiver.

Procedure for Cleaning an Inner Cannula

For children with a **tracheostomy that has a reusable inner cannula**, follow these instructions:

- Wash hands and put on gloves. (If there is an assistant, he/she must wash his/her hands too.)
- Hold the neck flange steady with one hand.
- With the other hand, grasp the twist-lock inner cannula connector and carefully unlock it using a counter-

clockwise motion.

- Pull the inner cannula out of the tube, using a downward motion.
- If there is a need to use a ventilator during this cleaning procedure, insert a clean spare inner cannula (SIC) which is designed for short term use. *The SIC should NOT be used as a replacement for the standard inner cannula that is used with the tracheostomy tube.*
- Place the soiled inner cannula in a small wash basin containing a cleaning solution as advised by your caregiver. Use a small, non-abrasive brush or pipe cleaner to gently remove mucus.
- After cleaning, rinse the inner cannula thoroughly with sterile normal saline or distilled water.
- Air-dry the inner cannula by gently shaking it.
- Hold the neck flange steady with one hand.
- Remove the spare inner cannula, if you used one.
- Reinsert the clean twist-lock inner cannula into the tube and secure it by gently twisting it clockwise until the blue dot on the inner cannula lines up with the blue dot on the tube. *For this step, follow the instructions for your equipment if they do not match what is described here.*
- Clean the spare inner cannula, air dry and store in a safe place.

Procedure for Changing a Disposable Inner Cannula

For children with a **tracheostomy that has a disposable inner cannula**, follow these instructions:

- Wash hands and put on gloves. (If there is an assistant, he/she must wash his/her hands too.)
- Hold the neck flange steady with one hand.
- With the other hand, gently squeeze the snap-lock and pull the inner cannula out of the tube, using a downward motion.
- Throw away the used inner cannula.
- Gently squeeze the snap-lock of the new inner cannula and insert it into the tube. Release the snap-lock connector when it securely locks onto both sides of the connector rim.

SEEK MEDICAL CARE IF:

- Swelling, redness, drainage or tenderness develops at the tube-entry site.
- Your child has a tracheostomy, and excessive redness or pimples develop around the opening.

SEEK IMMEDIATE MEDICAL CARE IF:

- Choking or difficulty breathing develops even after suctioning and cleaning.
- Difficulty breathing (despite a clean and properly placed tube), nausea (your child feels sick to their stomach), or vomiting develops.
- Bleeding develops around the tube site.
- The tube becomes plugged and cannot be cleared.
- There is an excessive air leak.
- The tube falls out and cannot be re-inserted or cannot be re-inserted when doing a routine change.
- If using a ventilator, the "high pressure: alarm goes off, and:
  - There is no change after removing any kinks in the ventilator tubing.
  - You are sure that the tracheostomy tube (or other airway tubing) is open and clear.
  - The ventilator tubing has been drained of collected water.
- If using a ventilator, the "low pressure" alarm goes off, and:
  - There is no change after making sure all ventilator tubing is connected properly.
  - A cuffed tracheostomy tube is inflated properly.
  - A fenestrated inner cannula (if one is being used) is replaced with a non-fenestrated inner cannula.

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