

Family Education Sheet

Home Care Instructions for Suctioning a Tracheostomy (Trach) Tube



Boston Children's Hospital

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You will need to suction your child's trach tube in order to remove the secretions (mucous) that build up in the tube. You will use a catheter and suction machine to do this.

What do I need to know about keeping the tube clean?

- Make sure to suction the trach tube according to the schedule your child's doctor gave you. Suction at least once every 8 hours to make sure the tube does not get clogged.
- Suction to no deeper than 1 centimeter (10 mm) beyond the end of the trach tube. Do not go any deeper unless your doctor told you to.
- You need to perform "clean suctioning." This means that you must:
 - Wash your hands and put on gloves before suctioning.
 - Make sure the catheter does not touch anything before you use it.
 - To reuse the catheter, flush the catheter with sterile or distilled water when you are done suctioning and put it back into the package.

How do I know when the trach tube needs to be suctioned?

You should suction your child's trach tube when:

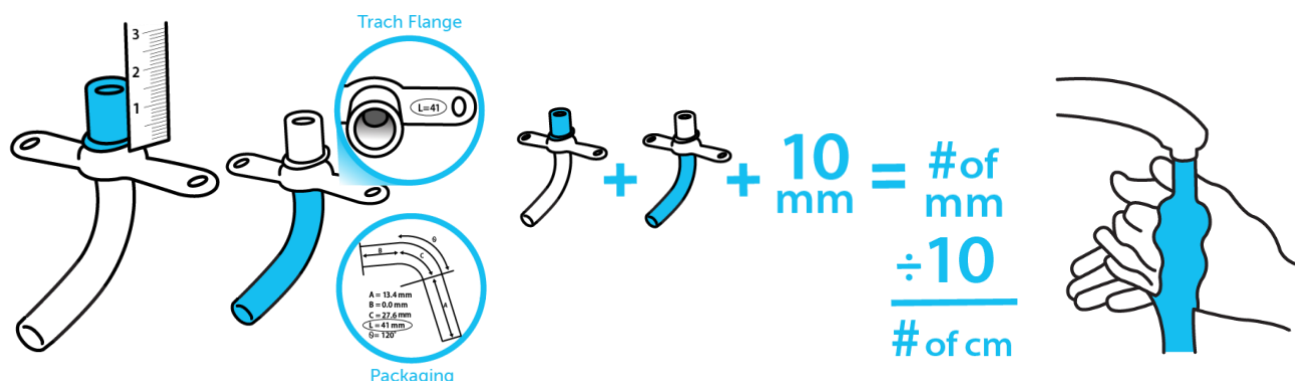
- You notice changes in your child's breathing (especially if he or she is breathing faster than normal)
- Your child has a lower oxygen saturation
- Your child's breathing is "noisy"
- The measured peak inspiratory pressure (PIP) is higher than usual or the measured tidal volume is lower than usual on your child's ventilator

What supplies do I need to suction the tube?

- Self-inflating manual resuscitation bag with a pop-off valve and swivel attached to oxygen (if your doctor orders it)
- Pulse oximeter
- Suction machine
- Suction catheters
- Gloves
- Sterile normal saline vials for instillation
- Tape measure

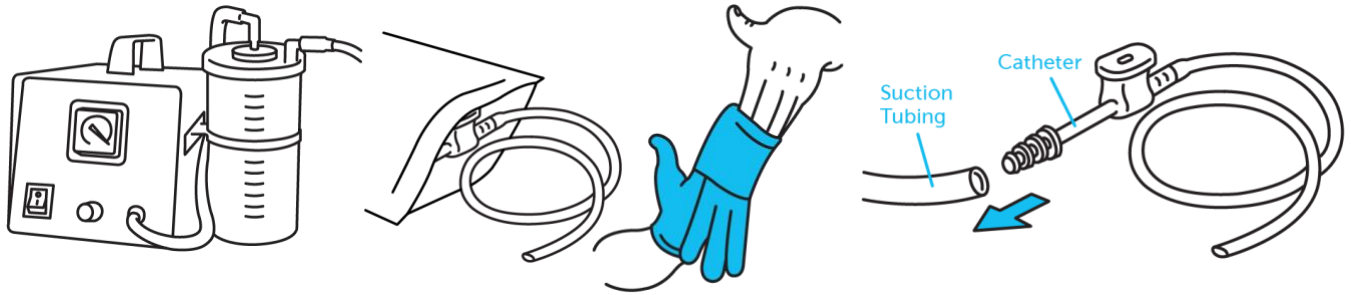
How do I prepare to suction the trach tube?

Find the depth of suction. You can do this by following the example below:

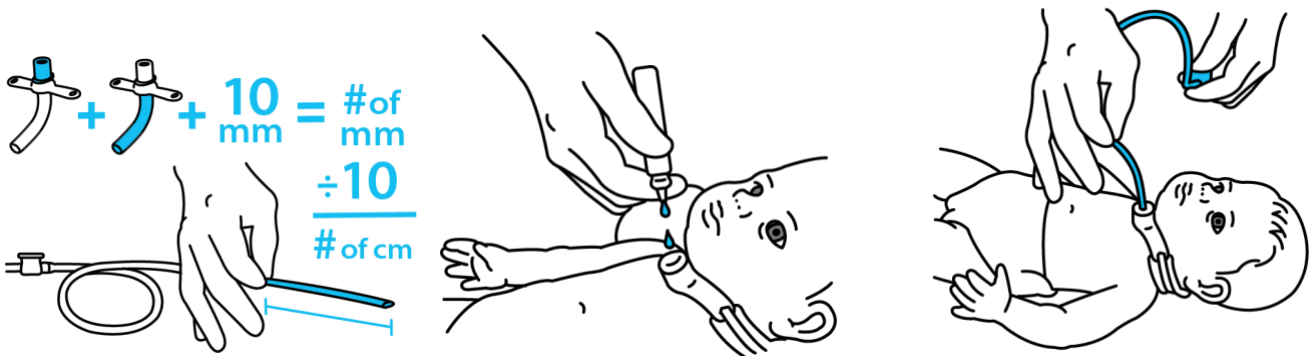


- 1 Measure the trach adapter (the part of the trach tube outside the body) with a tape measure.
- 2 Find the length of the trach shaft shown on the trach flange or packaging.
- 3 To find the correct depth of suction, add the length of the trach adapter plus the length of the trach shaft plus 10 mm. To convert to centimeters, divide that number by 10.
- 4 Wash your hands.
- 5 Give your child oxygen before suctioning, if told to by doctor.

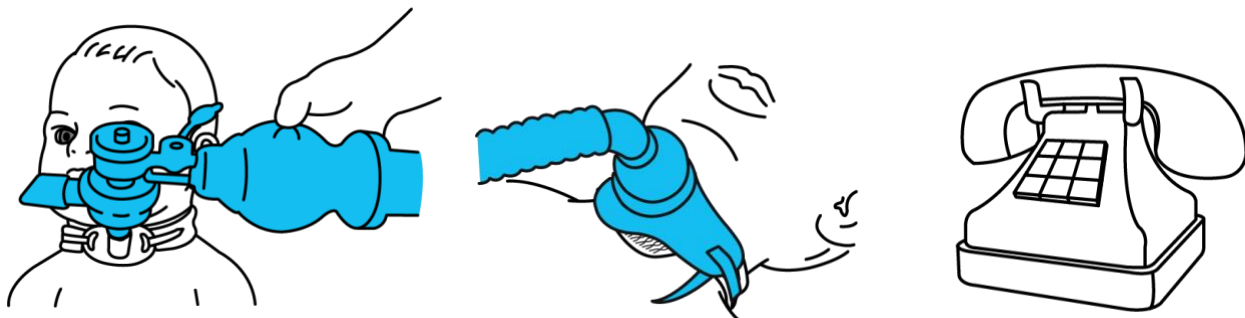
How do I do open suction?



- 1 Turn on the suction machine and check to make sure it works.
- 2 Get ready to practice clean suctioning by opening the suction kit, putting on gloves and removing the catheter from the package. Make sure the catheter does not touch anything but the packaging.
- 3 Connect the suction tubing to the catheter. Be sure to keep the catheter clean.

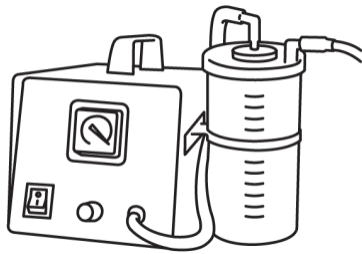


- 4 Based on the number you got in the prep stage, find the depth of suction and keep your fingers there as a guide.
- 5 If secretions (mucous) are thick, put 0.5–1 mL of sterile normal saline directly into the trach tube.
- 6 Gently insert the catheter into the trach tube to the right depth. Block the suction port while pulling out the suction catheter. Each pass should be 5–10 seconds. You can use suction while inserting the catheter only if you see secretions.

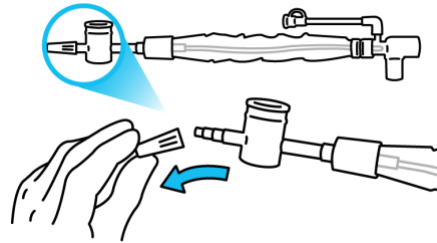


- 7 You may use manual ventilation between passes and at the end of the procedure.
- 8 Return your child to the regular level of oxygen support or ventilator.
- 9 Write down if there is a change in amount, thickness and/or color of the secretions. Call your child's doctor if you see a change.

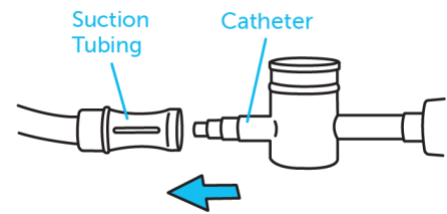
How do I do closed suction?



- 1 Turn on the suction machine and check suction level.

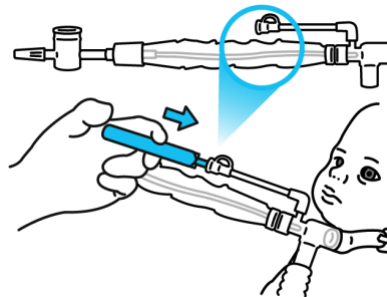


- 2 Remove the cap.



- 3 Connect the catheter to the suction tubing and open the lock.

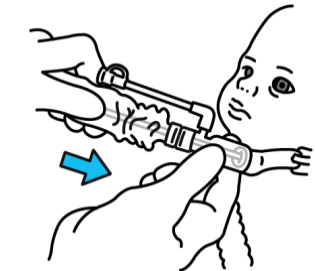
$$\begin{array}{l} \text{[Diagram of catheter tip]} + \text{[Diagram of catheter tip]} + 10 \text{ mm} = \text{\# of mm} \\ \hline \text{\# of cm} \end{array}$$



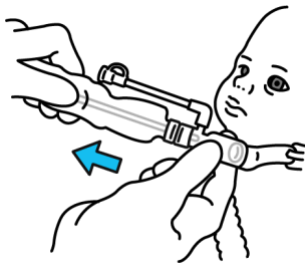
- 4 Based on the number you got in the prep stage, find the right depth of suction.

- 5 Attach a sterile normal saline vial to the irrigation port on the catheter.

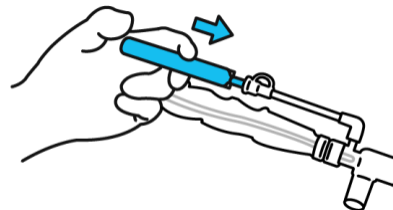
If secretions (mucous) are thick, instill sterile normal saline. To do this, gently insert the catheter until it is near the trach tube. Put in .5-1 mL of saline and pull the catheter back to the resting position. Allow the ventilator to give 2-4 breaths.



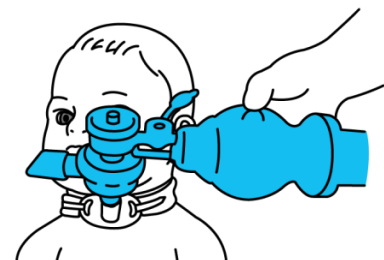
- 6 Gently push the catheter into the trach tube to the depth you measured in the prep stage. Apply suction. Wait 3 seconds.



- 7 Slowly take the catheter out (steps 6-7 should not take more than 10 seconds total).



- 8 Allow the ventilator to give your child 2-4 breaths. Flush the catheter between each pass.



- 9 Sometimes you will give your child manual ventilation between suction passes and when you are finished with the suction.

- 10 Return your child to the regular level of oxygen support.

- 11 When you are done suctioning, flush the catheter, close the lock, replace the cap on the end of the catheter and turn the suction machine off.

- 12 Write down if there is a change in the amount, thickness and/or color of the secretions. Call your child's doctor if you see a change.

Whom should I call if I have questions?

Please call your primary care provider for more information or if you have any questions.

If your child needs emergency care, call 911 right away.