

A Caregiver's Guide to Tracheostomy Care: *A Team Approach*



Mt. Washington
Pediatric Hospital

Where Children Go to Heal and Grow

An affiliate of University of Maryland Medical System and Johns Hopkins Medicine

SPECIAL THANKS TO
Respiratory Therapy Team
Education Team
Nursing Team



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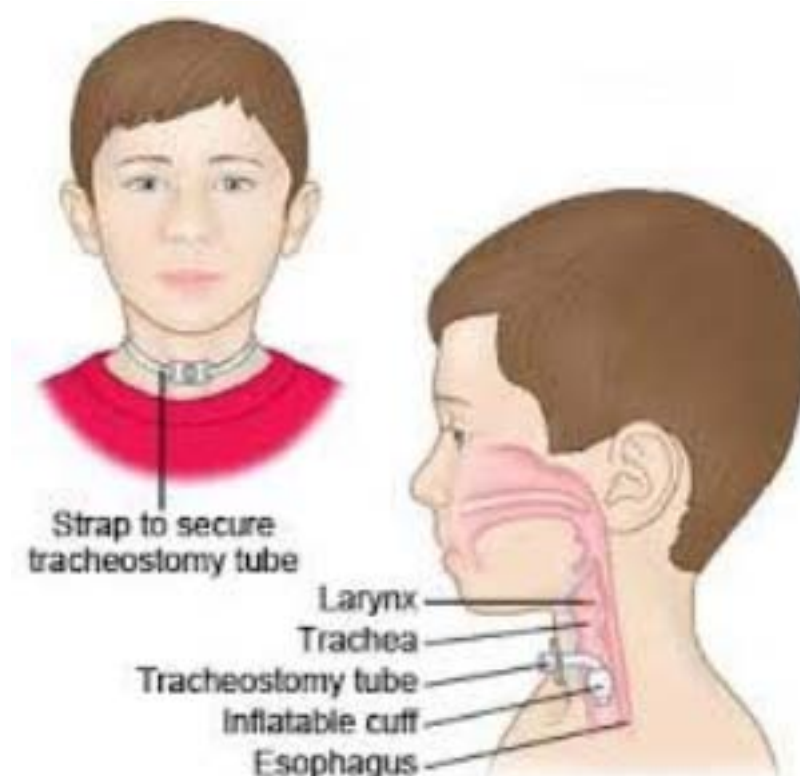
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What is a tracheostomy?

A tracheostomy (tray-kee-ah-stoh-mee, or “trach”) is a surgical opening made in the front of the neck into the trachea (windpipe). A short tube is put in the stoma (opening in the neck). The child breathes through the trach tube instead of through the nose and mouth.



Your child needs a trach for one of these reasons:

- Airway problems
- Tracheomalacia (soft windpipe)
- Needs to be on the ventilator (breathing machine) for a very long time

How will I care for my child at home?



It is important to care for your child as normally as possible. However, there are some special things you will need to do:

- Prevent Infection
- Suction the mucus out of the tube
- Clean the trach opening
- Change the trach ties & tube holder
- Give humidity
- Watch for breathing problems
- Double check every day that you have your emergency supplies



Preventing Infection

STEPS:

- 1** Clean hard surfaces with household cleaners (do not use a spray) and lay a clean towel on it.
- 2** Wash your hands with liquid hand soap for at least 15 seconds, rubbing all surfaces briskly, or use an alcohol hand sanitizer.
- 3** Equipment maintenance and cleaning instructions will be given to you by your home care equipment company.



IMPORTANT TIP

Do not use sprays, powder, or cut gauze; these could go into your child's trach and lungs

Transitioning to Home



You may feel afraid when you first start taking care of your child on your own; this is normal. There are many things to learn, but we are here to help you practice and become comfortable with the steps.

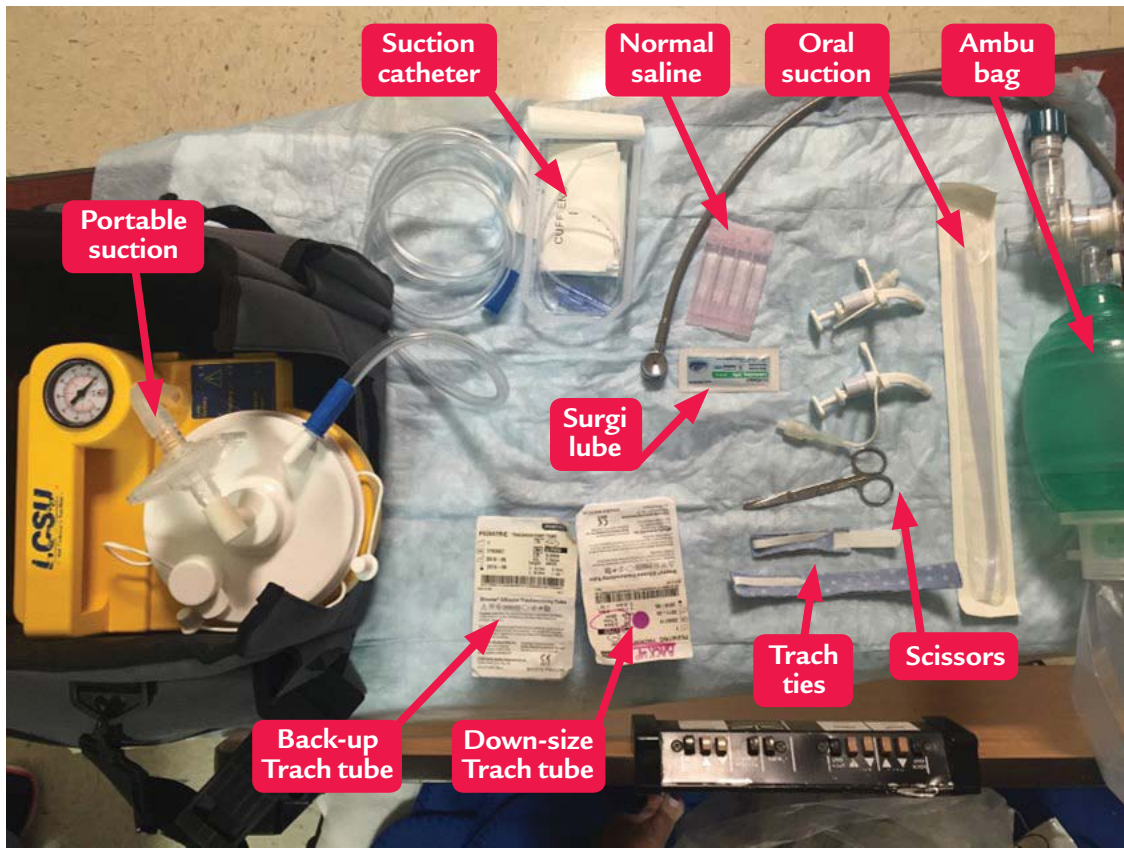
You will do some cares several times a day, and some a few times a week. It helps to have a calendar with your day's activities. Organization, a schedule, and help from family members is important. It is important for several people to learn to care for your child, so you can have a break.



Parts of a Trach



What supplies should I have?



IMPORTANT TIP

An emergency trach bag should accompany your child at ALL times



Providing Air Humidity

Humidity is the amount of moisture or wetness in the air. We need to breathe in moisture to keep the lung's cleaning system working. This helps our lungs stay free from infection.

The lining of our nose and throat moistens, cleans, and warms the air each time we take a breath.

Air going directly into a trach does not get moistened, cleansed, or warmed.

Dry air can make lung mucous thick and sticky. It can even cause lungs to make more mucous. Gum-like mucous plugs can form that are hard to cough up.



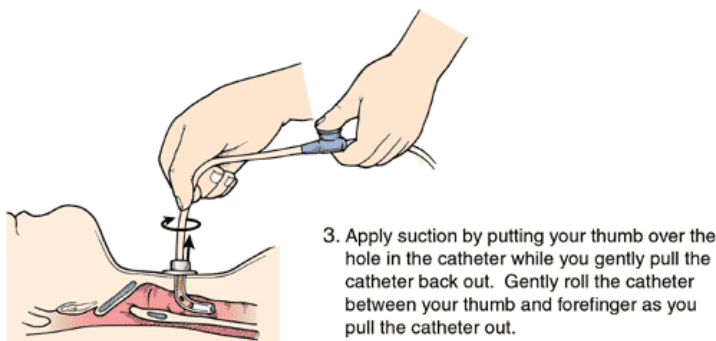
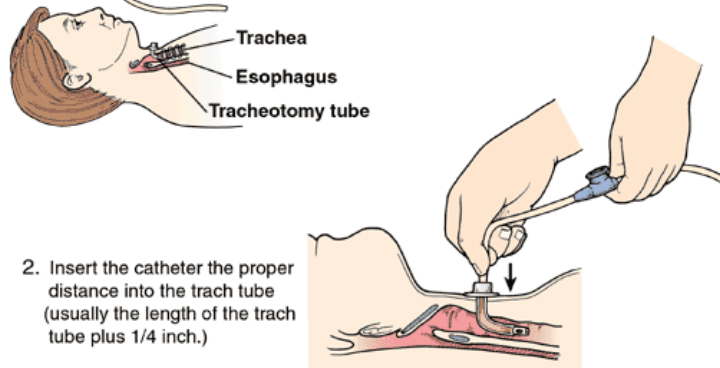
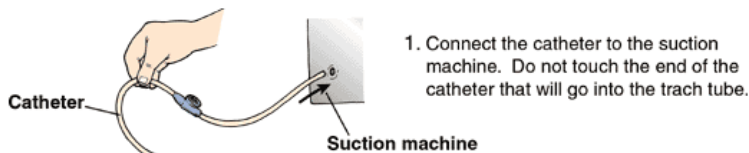
When do I suction the trach?

- ▶ When you hear loud gurgles in the trach tube
- ▶ You see bubbles in the trach
- ▶ You feel rattles on your child's back or chest
- ▶ Your child seems agitated and restless, is sweating, or cries and cannot be comforted
- ▶ Your child is having trouble breathing:
 - ▶ Faster breaths or heart rate
 - ▶ Pale, bluish, or grayish color around eyes, mouth or fingernails
 - ▶ Flaring nostrils
 - ▶ Retracting (chest or neck skin pulls in with each breath)
- ▶ Your child's breathing machine is alarming high pressure
- ▶ You will get used to your child's routine, try to stick with the routine unless your child is uncomfortable or in distress (as described above)

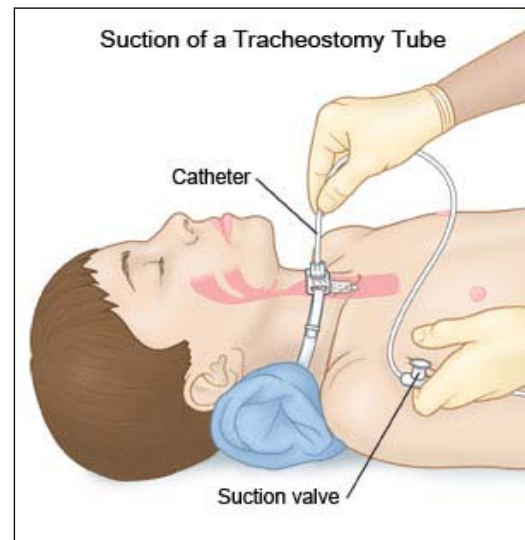
Suctioning with a machine and catheter

- 1 Put on sterile gloves. Do not touch anything with suctioning hand so that you keep it sterile.
- 2 Pick up the sterile catheter with your sterile suctioning hand and the suction tubing with your other hand & connect the two ends.
- 3 Open the catheter kit. If there is a cup, fill it with sterile water.
- 4 Plan how deep you will suction safely:
_____ .
- 5 Put the catheter into the trach and be sure to not block the thumbport.
- 6 Once you have gone the safe depth; block the thumbport and slowly twirl and pull the catheter out.
- 7 Suction no longer than 5 seconds each time you move the catheter into the trach.
- 8 You may need to give a few breaths with the ambu bag and wait 15-20 seconds in between suctioning.

How to Suction a Tracheostomy Tube



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Suctioning with an in-line catheter

Suction with the machine and in-line catheter at least every 4-6 hours and as needed, usually in the morning, before meals, at bedtime, and after Chest PT. Often, a child will be able to cough up mucus.

In-line suction catheters are placed and changed out as directed by your home equipment provider.

Before Suctioning with an In-line

Catheter: Get your work area together/prepare all equipment (normal saline, in-line suction catheter, suction machine).

- 1 Clean your hands.
- 2 Check safe suction depth (check your child's measurement card).
- 3 Turn on machine and check pressure on the suction machine.

Steps for Suctioning with an In-line Catheter

- 1 Remove cap from suction port and attach to closed catheter system.
- 2 Set suction to appropriate pressure (while holding down the thumb port adjust the pressure setting).
- 3 Advance the catheter with the pinch and push method until the measured color is matched up to the suction depth.
- 4 When the catheter is at the correct depth, press suction button and hold for two seconds before slowly pulling back with continuous suction taking about 5 seconds, until black tip is back in your sight.
- 5 Watch the window closest to thumb port, noting the color, amount, and thickness of the secretions.
- 6 Flush the catheter, according to directions from your child's therapist or nurse.

Daily cleaning of the neck and stoma

😊 Wash your hands.

1 **Get ready.** You will need:

- 2 wet gauze pads
- 2 dry gauze pads (one for left, one for right side)
- Cotton swab
- Sterile water
- Any ointment or powder prescribed by your doctor

2 Hold the trach tube at the flange with your fingers while cleaning (a 2-person job)

3 Wash the skin around the neck with sterile water, wiping the gauze away from the stoma, (as you don't want to push dirt and germs toward the stoma).

4 Pat dry with a clean gauze (starting at the stoma, and wiping towards the back of the neck).

Every day as you clean the stoma area and neck, check the skin around the stoma and neck for redness, drainage, rash, dampness, or unusual smell.



Changing the trach ties

You will need 2 people for this job— both people should wash their hands.

- 1 Put a blanket under your child's shoulders. You may need another blanket to swaddle them if he or she is wiggling.
- 2 Suction if needed.
- 3 Person A holds the trach tube by the flange.
- 4 Person B takes off the old Velcro strip or twill tapes.
- 5 Put on the new Velcro strip or twill tapes, & check tightness (a little finger should fit snugly under the center back of the neck).
- 6 Velcro strips can stretch. If they get loose, hold the flange securely & tighten them.
- 7 Clean Velcro strips by soaking in soapy water, rinsing and air drying.
- 8 Check Velcro before re-using it to make sure it sticks together. If using twill tape, resize by measuring the child's neck, not the old strips.



Changing the trach

Change trach tube once a week or sooner, if needed.

😊 Wash your hands.

1 If possible, have someone help you (everyone must wash their hands).

2 Prepare clean trach with ties.

3 Place obturator in clean trach tube.

4 Dip the end of tube in the jelly.

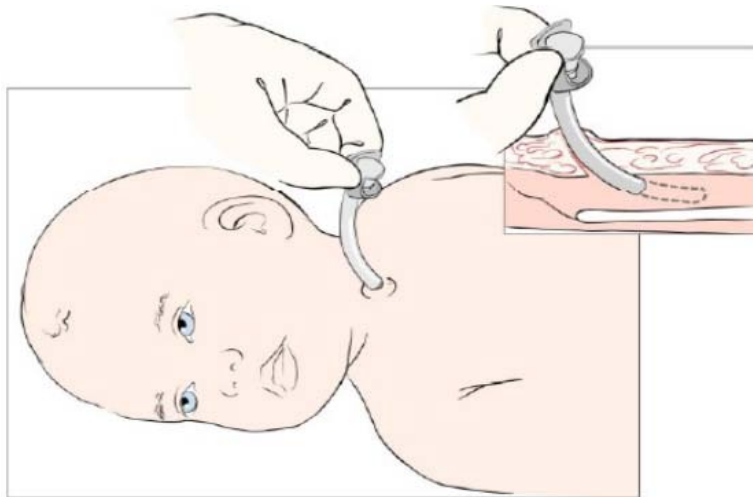
5 Place a small roll under shoulders of small children.

6 Suction, if necessary.

7 Give extra oxygen before trach change, if necessary.

8 While trach tube is held in place, cut one side of tie, gently remove trach tube and old trach tie.

9 Point curve of clean trach tube down. Slowly insert trach tube into stoma.



Trach in...



Obturator out...

Cleaning the trach tube

- ☺ Wash your hands.
- 1 Put saline in one bowl and peroxide in another bowl.
- 2 Take out the inside cannula and hold the flange in place.
- 3 Put the inside cannula in the peroxide bowl and let it soak.
- 4 Use the brush to scrub the outside & inside of the cannula.
- 5 Peek inside the cannula to make sure it is free of any mucus.
- 6 Rinse the inside cannula in the saline.
- 7 Put the cannula back in the obturator (and hold the flange in place).
- 8 Turn cannula until you hear it click into place.
- 9 Tug ever so slightly on the cannula to double check that it is locked in place.



Checking your child's health

1 Check the color of your child's gums, lips, and fingernails:

The normal color is pink (but everybody is different, just be sure to be aware of your child's normal (or baseline) color). If the color changes from normal to grayish or bluish and you have suctioned the trach, this means your child needs oxygen.



2 Check breath sounds:

- Check without a stethoscope—Is there even chest rise? How is your child's color? Can you hear and/or feel anything different with your child's chest?
- Check with a stethoscope—Does your child's chest sounds like it normally does? Can you hear air moving in and out of the lungs?

3 Check the mucus for changes:

- More mucus means you need to suction more often.
- Thick mucus means your child needs more humidity or to drink more fluids.
- If there is a different smell or color to your child's mucus, or if there is blood or streaks of blood, call the doctor right away.

4 If your child is sick, check his or her temperature:

- Normal body temperature is around 97.6° (under the arm) to 99.0°. A fever would be about 99.5° under the arm, or about 100.5° rectally. A fever will often make the heartbeat and breathing rate increase.
- Keep in mind, there are certain things that make your kid special; just be sure to know what is normal for your child.

Problem solving

What should I do for breathing problems?

- 1 Suction.
- 2 Give breaths with the resuscitation bag.
- 3 Give oxygen if you have it.
- 4 Repeat suction with lavage.
- 5 Change the trach tube.
- 6 Call your child's doctor (phone # _____) or call 911.



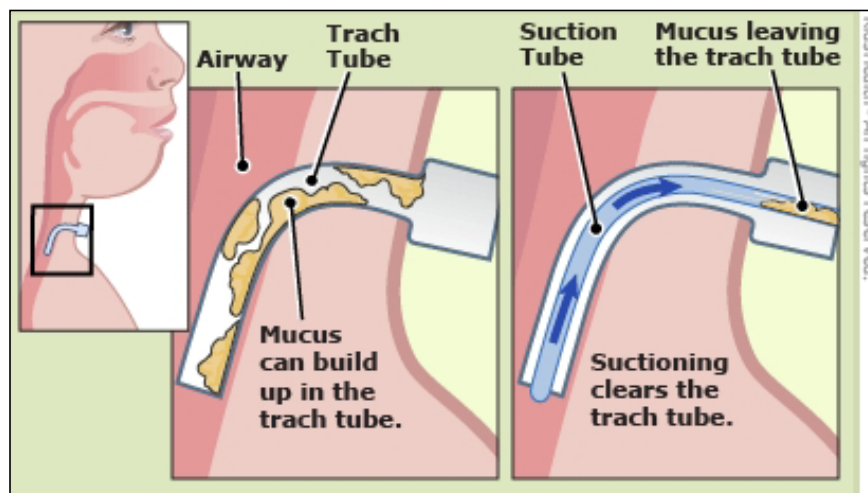
What should I do if the trach tube comes out?

- 1 Insert a clean tube with obturator.
- 2 If a clean tube is not handy, insert the same tube that came out using the obturator. Do not waste time looking for a clean tube! *Being prepared is vital, you must have a clean obturator available and with you at all times. You can even ask your nurses for the obturators they use in the hospital (given that their trach size doesn't change).*
- 3 If you can't find the trach tube, stay calm! The stoma may stay open and the child may be able to breathe for a short time.
- 4 Then get the travel kit and insert the clean trach tube.



Blocked tube procedure

- 1 Suction.
- 2 Give breaths with bag. Look for gentle chest rise.
- 3 Put 3ml normal saline into the trach.
- 4 Give breaths with bag.
- 5 Suction.
- 6 Give breaths with bag. Look for gentle chest rise.
- 7 Get travel kit. Change trach tube. Give breaths with bag.
- 8 Call 911.
- 9 Give breaths with bag. Look for gentle chest rise.
- 10 Try to give breaths with face mask over nose & mouth.
Never use the mask over the stoma.
- 11 Continue steps of CPR.



When should I call the doctor?

When should I call the doctor?

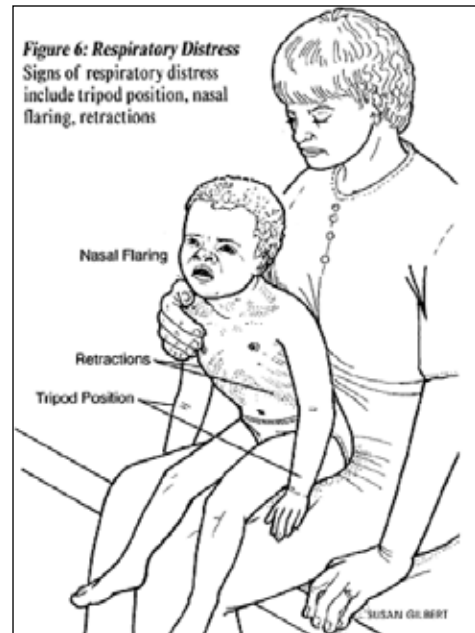
- 1 Redness, skin breakdown, or rashes around the stoma
- 2 Fever
- 3 Signs of dehydration (body doesn't have enough fluids)
 - No urine (or wet diaper) for 8 hours
 - Urine is darker in color than normal
 - Urine's smell is stronger than normal
- 4 Mucus is yellow, green, red, or has blood streaks or smells different
- 5 Any breathing problem that doesn't get better after suctioning
- 6 Bleeding more than a little from the trach—Do not remove the trach tube
- 7 You feel you can't handle the situation



General care

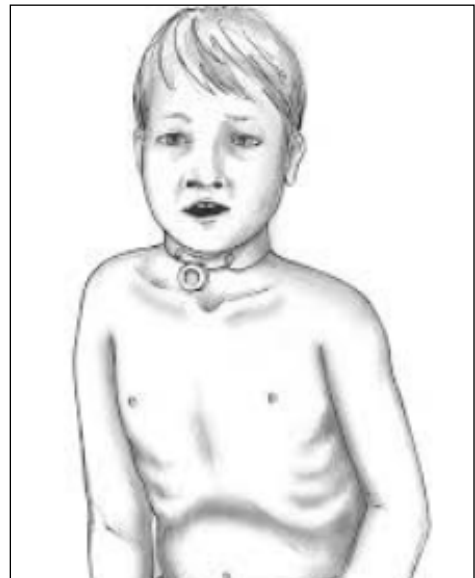
What are signs of breathing problems?

- 1 Child seems agitated and restless, is sweating, or cries and can't be comforted
- 2 Increase in breathing rate
- 3 Flaring nostrils
- 4 Retracting (chest or neck skin pulls in with each breath)
- 5 Dusky color of lips or on the sides of nose
- 6 Nails beds are blue or dusky
- 7 Child just does not look right



Safety Tips:

- 1 Use an intercom system
- 2 Keep pets with fine hair out of the home
- 3 Keep your home as free from lint/dust as possible (frequent vacuuming, dusting, etc.)
- 4 Keep a smoke-free home; no cigarettes, fireplaces, pipes, etc.
- 5 Do not use powders, bleach, ammonia, or spray cans in the same room as your child
- 6 Do not use a plastic bib; only use a cloth bib



My child's trach information

Trach tube size _____

Trach tube length _____

Trach tube brand _____

Suction catheter size _____

Safe suction depth _____

Stoma cleaning solution _____

Cuff inflation (if applicable) _____

Cuff deflation schedule _____

Inner cannula type (if applicable) _____

Tube change frequency _____

Number of times to reuse tube _____

Emergency trach tube size _____

My Child's Doctor _____

RESOURCES

- A breath of air: trach care
- tracheostomy.com
- support groups

www.childrensmn.org/educationmaterials/parents/article/13641/tracheostomy-parents-talk-video/



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