

Tracheotomy Care Handbook



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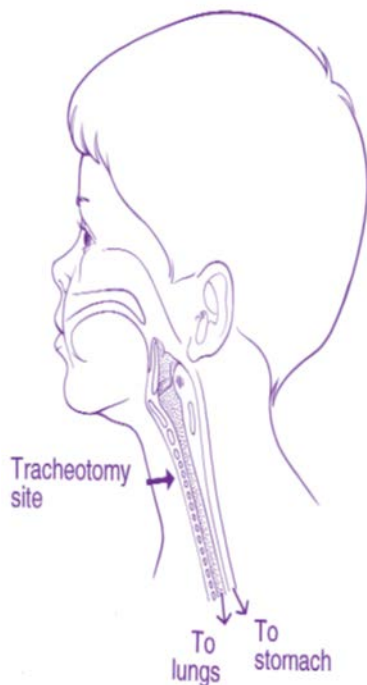
What is a Tracheotomy?

A tracheotomy is a surgery where a doctor places a tube for breathing into a child's trachea (windpipe). A tracheotomy is also known as a "trach". Developed almost 500 years ago, the surgery is done for many reasons. The reasons may include:

- bypassing a blockage in the airway
- to help patients who cannot cough out the mucus from their lungs
- to help patients who need to be on a ventilator (breathing machine) for a long time

The surgery usually is done in an operating room under a general anesthetic. The drawing below will help you see where the surgery is performed. The tracheotomy tube is placed below the larynx (voice box). Because of where the tube is placed, most children do not lose the ability to speak once the tracheotomy tube is put in. Some children may not be able to talk after surgery because of:

- Swelling around the tracheotomy tube
- The size of the tracheotomy tube needed for the child to breathe easily
- A blockage already in the airway



The tracheotomy tube is placed in front of the esophagus (swallowing tube), so most children can eat normally. Some children who have a history of choking and coughing after swallowing may still have these problems after getting a tracheotomy. Discuss your child's specific feeding needs with your doctor, nurse, dietician, or therapist.

Based on the reason your child needs the tracheotomy, it may be temporary. Most conditions that call for tracheotomies in children can be outgrown or surgically corrected. However, a tracheotomy may be needed for a long time for children who cannot cough out mucus from their lungs or need a ventilator (breathing machine). Talk about your child's condition with your doctor to understand r how long your child will require a tracheotomy.

Charles M. Myer III, M.D.

Parts of Trach Tubes

There are many types and brands of tracheotomy tubes. The tubes also come in many sizes and lengths. Your doctor will decide the type, size, and length of tube your child will need. The type of tracheotomy tube is based on your child's:

- breathing problem
- age
- airway size
- special needs

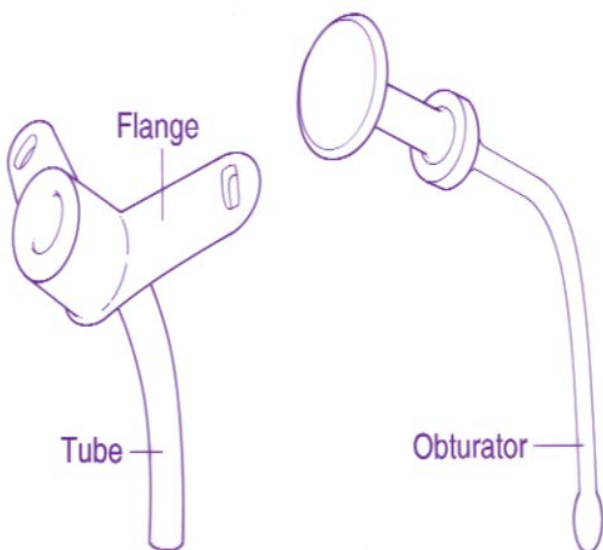
As your child grows and their condition changes, these same factors will help decide the correct type, size, and length of their tracheotomy tube.

Most tracheostomy tubes generally have the same basic parts:

- The tracheotomy tube or cannula
- The flanges or faceplate where the ties are secured
 - Some tubes will have an extended connect neck flange
- The obturator, or guide, for inserting the tube

Flanges

Flanges rest on the neck. Tracheotomy ties are attached on both sides



Obturator

A guide placed inside the tube when the tube is put in the patient. The obturator is taken out right after the tube is put in.

Please review the package insert found with your child's trach for specific information.

Suctioning a Tracheotomy Tube

Purpose

Suctioning a tracheotomy tube is done to:

- remove mucus from your child's tracheotomy tube and windpipe
- allow easier breathing

Mucus is the body's normal response for cleaning the airway. During the first few weeks after a tracheotomy, your child may have a large amount of mucus. This is due to the surgery itself and the tissue's normal response to the new tube. In many children, the amount of mucus should decrease over time.

When to Suction

You should learn your child's normal breathing pattern, so you know when they need suctioning. What you see, feel, and hear will tell you when to suction your child. Signs you should look for may include:

- rattling mucus not cleared with coughing
- fast rattling
- bubbles of mucus at tracheotomy opening

Advanced signs that your child needs suctioning may include:

- Frightened look
- Flared nostrils (nostrils become wide)
- Restlessness
- Pale or bluish color over skin, nails, mouth
- Clammy skin
- Fast, noisy, hard breathing
- Dry, whistling sound



Suctioning a Tracheotomy Tube

Supplies Needed

- Suction Catheter – Size _____
 - The ideal size suction catheter is $\frac{2}{3}$ the opening of the tracheotomy tube.
- Suction machine
 - Pressure gauges vary with suction machines. Check with your equipment company about setting the pressure limit.
- Disposable saline vials
 - Only use saline when secretions are thick, or blood tinged
 - Side effects may occur with saline use, including lower oxygen levels, changes in heart rate or infection
- Breathing bag – with optional tracheotomy adapter for metal trach tube
- Gloves
- Tissue
- Rinse water and paper cups (if rinsing catheters in water instead of saline)

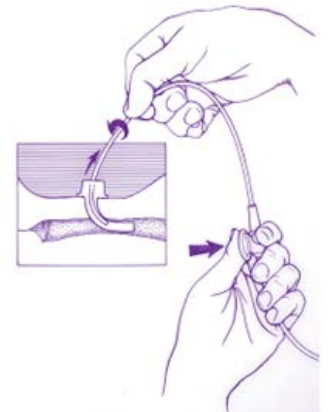


Suctioning a Tracheotomy Tube

How To Suction

Before starting to suction, make sure you know the suction depth. Using the obturator as a guide, measure how far to insert the suction catheter (many catheters have markings on them to make measuring easier).

1. Wash and dry hands.
2. Set up equipment.
3. Pour rinse water into paper cup.
4. Connect suction catheter to suction machine tubing.
5. Turn on suction machine.
6. Put small drops of normal saline into tracheotomy tube. (You do not have to use normal saline if mucus is thin and loose.)
7. Use a tissue to wipe away any mucus that is coughed out.
8. Put your thumb over the opening of the suction catheter.
9. While applying suction, gently place the suction catheter into the tracheotomy tube to the premeasured mark.
10. Use a gentle rolling motion while removing the suction catheter so that the mucus is removed well from all areas. This step should take no more than 5 seconds. It can be as short as 1 second.
11. Rinse the suction catheter.
12. Watch your child's color and breathing effort.
13. Let your child catch their breath between suctioning attempts.
14. Repeat suctioning until your child's respirations sound clear and the suction catheter returns with little or no mucus.
 - a. Limit the passes of the suction catheter to three (3) times whenever possible.
15. Throw away the suctioning supplies and turn off suction machine.
 - a. If you are reusing catheters at home, you may want to place used catheters in a plastic bag until you have time to wash them with soap and water. Air dry catheters and store them in an open container.
16. Wash and dry hands



TIP: If there are bloody streaks in the mucus, check suctioning depth and try using saline drops with suctioning. More time on the mist machine may also help decrease blood in the mucus. If the blood in the mucus does not get better within 24-48 hours, notify your doctor. If you see bright red blood, your child needs to be seen right away by your doctor.



Tracheotomy Skin Care

Purpose

Skin at the tracheotomy site needs to remain clean and dry. If drainage collects around the tracheotomy tube, germs can grow and cause infection or skin rashes.

When

Look at this area and clean it 2 times a day, or more often if there is redness, irritation, drainage, or cuts.

Supplies Needed

- Mild soap and water when skin is healed
- ½ strength hydrogen peroxide (mix equal parts hydrogen peroxide and water) when skin is not healed
- Cotton swabs
- Paper cups
- Skin care dressing as recommended by provider (optional)

How to Clean

1. Wash and dry hands.
2. Set up supplies.
3. Look at the neck, noting cuts or signs of infection.
4. Prepare soap and water or ½ strength hydrogen peroxide in a clean cup.
5. Dip cotton swab in solution.
6. Starting at the stoma, stroke away from the tracheotomy opening, using one stroke per swab. Discard swab.
7. Clean the flanges of the tracheotomy tube.
8. Using dry cotton swabs, dry the skin the same way you cleaned it.
9. Again, look at the neck.
10. Apply a dressing for excess drainage or if tracheotomy tube is rubbing the skin.
11. If using gauze, do not cut it. Frayed fibers may be breathed in the tube.



Tracheotomy Skin Care

Signs of Infection

- Redness
- Drainage
- Foul odor
- Swelling
- Cuts

How to Treat Skin Problems

The use of creams and lotions on the neck and the tracheotomy site is not routine. Call your doctor or nurse practitioner if there is:

- any signs of infection or irritation of the skin surrounding the tracheotomy tube
- skin care problem at the tracheotomy site



Tracheotomy Tie Change

Purpose

Tie changes are done to prevent the tracheotomy tube from falling out, and to prevent skin breakdown and rashes on the neck.

When

Ties are changed at least daily or when ties are wet or dirty.

Supplies

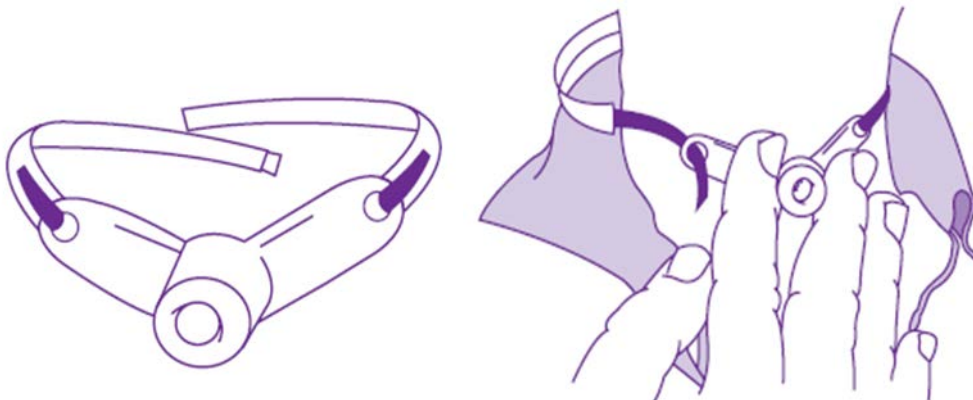
- Scissors
- Hemostats
- Extra twill or self-fastening tracheotomy ties



Self – Fastening (Velcro®) Ties:

How to change self-fastening ties:

1. Remove the old ties, one side at a time, while the second person holds the flange of the tracheotomy tube.
2. Slip the self-fastening tab through the opening of the tracheotomy flange, folding it back onto the cloth material to fasten it securely. Be sure to do one side at a time, this will ensure that one side is always fastened.
3. Repeat this step on the other side.
4. With the child's head flexed forward slightly, bring the two ends together, fastening the third self-fastening tab to the material.
5. Check that self-fastening ties are secure, only allowing one finger to fit between the tie and the neck



Tip: If using self-fastening ties, you must check the ties often throughout the day to make sure the Velcro is secure.



Tracheotomy Tube Change

Purpose

To prevent mucus plugs in the tracheotomy tube and to keep the tracheotomy tube clean.

When

Change the tracheotomy tube every 1-2 weeks (every 2-4 weeks for adult trach tubes). Two trained people are required for scheduled routine trach changes. In an emergency, you must be prepared to change the tube by yourself.

Supplies

- Current size and length tracheotomy tube
- Size smaller and correct length tracheotomy tube
- Tracheotomy ties
- Water-based lubricant
- Scissors
- Hemostats (or blunt tipped tweezers)
- Supplies for suctioning
- Tissues
- Self-inflating bag



Tracheotomy Tube Change

How to change:

1. Wash and dry hands.
2. Prepare ties. Secure the Velcro ties to the flanges of the new trach or insert twill ties into one of the flanges. Place tracheotomy tube on clean surface. Avoid touching the cannula on any unclean surface.
3. Moisten the tip of the tracheotomy tube with lubricant.
4. Prepare suctioning equipment.
5. Suction your child's tracheotomy tube.
6. Place the child on their back with a small roll under their shoulders. If your child cannot tolerate lying on their back, we will teach you the side lying or sitting position technique.
7. Have one person loosen the ties, holding the tracheotomy tube in place and calming the child.



Check with your doctor or nurse before placing your child in this position. Some children should not be placed in this position.



8. The first person removes the old tracheotomy tube when the second person is ready.
9. The second person inserts the tracheotomy tube in one smooth curving motion, directing the tip of the tracheotomy tube toward the back of the neck. Do not force the tube!
10. Remove the obturator, holding the tracheotomy tube securely.
11. Changing the tracheotomy tube will cause the child to cough. Have tissues ready to wipe secretions or prepare to suction. Do not let go of the tube!
12. Secure the tracheotomy ties, only allowing room for one finger/fingertip between the neck and the ties.



Tracheotomy Tube Change

If the tube does not pass easily:

1. Remain calm and act quickly.
- 2. Do not force the trach tube!**
3. Let your child relax and breathe.
4. Reposition the child so the head is back, and the stoma can be seen. Try putting the tube in again.
5. Relubricate the tube, check angle of insertion. Try inserting the tube again.
6. If you still cannot place the trach tube, **call 911**. Start rescue breathing and/or CPR if trach tube change is not effective.
7. Try to insert the size smaller trach tube. Remember that you can give your child breaths with a mask over the nose and mouth if you cannot get the trach in place.
8. When your child is pink, continue mask bagging and try to insert the size smaller trach tube.
9. If you cannot insert the smaller size tube, insert a suction catheter through the size smaller trach tube. Guide the suction catheter into the stoma. Then slide the trach tube over the suction catheter and into the stoma.
10. Remove the suction catheter. Connect the trach ties. Take the mask off the breathing bag and place the breathing bag on the new trach.
11. Breathe for your child with the breathing bag until they are breathing on their own or until help arrives.
12. After the emergency is over, call your child's doctor for advice if the size smaller trach tube could only be placed.

Note: Most children with trachs can be mask bagged over the nose and mouth when you cannot get the trach tube into the stoma. Ask your doctor if your child's airway allows mask bagging in this emergency.

Tip: It is helpful to keep an emergency tube and a set up with ties in a small plastic bag in your emergency trach bag.

Use this trach tube with ties for your routine trach tube change every one to two weeks. Then place a new trach tube and ties in a small plastic bag in your emergency trach bag.

You never want to keep the emergency tube and ties in your emergency trach bag for more than two weeks.



Humidification

Purpose

Your nose warms, moistens and filters air that you breathe. With a trach, air your child breathes goes directly into the lungs through the trach tube. Humidity is needed to:

- Prevent your child’s trach tube from clogging off with mucus
- Keep the mucus loose by preventing dry air from getting in your child’s lung. Dry air may cause more coughing and blood-tinged mucus.

You can supply humidity with:

- A mist collar
- An “artificial nose”

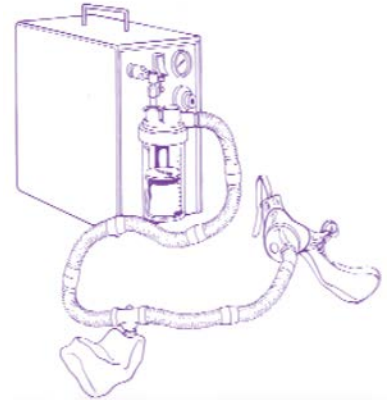


Mist Collar

A mist collar should be worn when:

- Your child is asleep
- Oxygen is being used through the trach tube
- Your child has thick or blood-tinged mucus

Always be sure your mist is working and there is enough water supply to make the mist



Artificial Nose

An “artificial nose”:

- Holds your child’s own warmth and moisture in the airway
- Filters small objects away from the airway
- May also be called an HME (Humidification-Moisture Exchange)

An artificial nose can be worn:

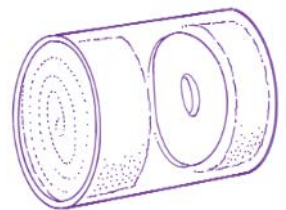
- During the day when off the mist setup
- Outside on cold or windy days

The “noses” are changed daily or as needed when damp or soiled.

Room Humidifiers

Room humidifiers add extra moisture to the room. They are sometimes used:

- By older children who do not like mist collars
- Seasonally when the air is drier



Tip: If your child is refusing to wear a mist collar or “artificial nose”, try:

- Loose fitting cloth bib without plastic backing
- A play or quiet area close to the mist machine

~~A room humidifier~~
if approved by 14
provider



Clean humidifiers carefully to prevent mold and spore growth.

Emergency Bag Equipment

Thorough tracheotomy care for your child can prevent most breathing problems. Yet accidents can happen and breathing problems can occur. You must be prepared.

YOUR CHILD SHOULD HAVE HIS EMERGENCY EQUIPMENT WITH HIM AT ALL TIMES!

The emergency equipment should include:

1. Same size and length tracheotomy tube with ties already in place with obturator
2. One size smaller tracheotomy tube with the ties already in place with obturator
3. Suction machine (unit should be fully charged) with tubing
4. Suction catheters
5. Self-inflating bag with face mask and adaptors, if indicated
6. Normal saline
7. Extra tracheotomy ties
8. Scissors
9. Hemostats
10. Water based lubricant
11. DeLee suction
12. Phone list
13. Syringe, if the trach tube has a cuff with sterile water

Tip: The emergency trach bag should be sturdy. It should close completely and allow the contents to be easily found.



Signs of Respiratory Distress

Before you leave the hospital, you will be able to take care of your child with a tracheotomy tube and prevent most breathing problems. One of the most important things you will learn are the signs that your child is having breathing trouble.

Early signs of breathing trouble may include:

- Noisy breathing
- Fast breathing
- Sweaty, clammy skin
- Restlessness
- Change in breathing pattern

Later signs of breathing trouble may include:

- Hard breathing seen as sinking in of the chest, neck, or ribs or head bobbing
- Flared nostrils
- Blue or pale gray color around the lips, nails, and skin
- Your child does not wake to your touch or when calling their name

If your child is having trouble breathing and your child does not get help, they could stop breathing. You either need to call 911 or your doctor, depending on how bad their breathing is. You also need to take steps to check and clear their airway until help arrives, using the care that you have been taught.



Mucus Plugging

What is a mucus plug?

Mucus can collect in the tracheotomy tube or airway and cause a “plug.” This makes it difficult for your child to breathe easily.

Ways to prevent a mucus plug:

- Make sure your child drinks or gets plenty of fluids through his feeding tube.
- Use a mist collar with the tracheotomy tube while your child is sleeping or if mucus is thick or blood tinged.
- Use an artificial nose when mist is not in use.
- Encourage your child to cough out secretions.
- Suction twice a day unless your child can clear their own secretions by coughing or as needed.
- Use saline drops to help loosen mucus with or without suctioning.
- Perform routine tracheotomy tube changes.

Signs that a trach may be plugged:

- Fast, noisy, hard breathing
- Dry whistling sound from the tracheotomy tube
- Restlessness
- Clammy skin, sweating
- Complaints from your child that they cannot breathe
- Trouble passing a suction catheter through the tracheotomy tube
- Blue color around lips, nails, and skin
- No breathing and your child does not wake to your touch or when calling their name

How to remove a mucus plug:

1. Try to suction the tracheotomy tube.
2. Place saline drops into the tracheotomy tube and try to suction again.
3. Repeat saline drops into the tracheotomy tube and push the drops down to the plug with puffs of air from your breathing bag attached to the tracheotomy tube. Try to suction again.
4. Change the tracheotomy tube if you cannot pass a suction catheter, or if symptoms do not resolve with saline, suction, and bagging.
5. If trach tube change does not help make the symptoms better, call 911, start rescue breathing and/or CPR.



Accidental Decannulation

What is an accidental decannulation?

When the tracheotomy ties are too loose, the tube can be coughed out, tugged out, or can fall out of the airway, and your child cannot breathe easily.

How to prevent and accidental decannulation

- Check to make sure the tracheotomy ties are secure, dry, and intact throughout the day and whenever you suction.
- If the ties are loose, tighten them. If they are tearing, replace them.
- Do not allow your child or any other person to pull at the tracheotomy tube ties.
- Keep the right humidity level and suction as needed to control the amount of secretions. Too many secretions can cause coughing.

Signs that a trach may have come out:

- Fast, noisy hard breathing
- Restlessness
- Clammy skin, sweating
- Complaints from your child that they cannot breathe
- Blue color around lips, nails, and skin
- Some children can make sounds louder than they could before it came out
- No breathing and your child does not wake to your touch or when calling their name

How to replace a trach tube:

1. Remain calm but act quickly.
2. If someone is with you, call out to them that the tracheotomy tube is out.
3. Insert trach tube, as instructed in section, “Tracheostomy Tube Change”.
 - It is ok to slide the old tube that has just come out back in if it is the only tube in the area, and your child is having trouble breathing. After your child is safe and calm, you should replace with a clean tube.
4. If you are unable to replace the tube, or your child is struggling to breathe call 911, start rescue breathing and/or CPR. Always get help and call your doctor if your child is having trouble breathing or if you are unable to place the same size tracheotomy tube.
 - Discuss with your doctor, nurse practitioner, nurses, or respiratory therapists specific things you can do for your child if you cannot replace the tracheotomy tube.

TIP: If your child is likely to pull the tracheotomy ties or tube, self-fastening ties is not a good option. Speak with your nurse or nurse practitioner about other tracheotomy tie options. If you are washing and reusing self-fastening ties, check the tie for a secure hold.



Bleeding from the Tracheotomy Tube

What causes bleeding from the trach?

Bright red blood coming from the tracheotomy tube is serious and may be a sign of serious irritation or ulceration of the airway. Your child needs to be seen by a doctor right away.

Bloody streaks in the mucus are also concerning. They may be from:

- a dry airway
- frequent, deep, vigorous suctioning
- infection
- coughing too much, especially with loose ties
- irritation from the fit of the trach tube
- trauma of the tube
- foreign body in the airway

How to prevent bleeding

- Keep regular check-ups with the doctor to make sure the trach tube is the right fit.
- Use the suctioning technique outlined in the section, “Suctioning”.
 - Only suction the length of the trach tube, you do not want to create scrapes on your child’s trachea wall.
- Use humidification. See section on “Humidification”.
- Get early treatment for your child if they show signs of infection or increased coughing.

How to handle bright red bleeding

- Call 911.
- Stay calm.
- Gently suction the length of the trach tube.
- Use saline to help soothe the airway and prevent plugging.
- If the bleeding has stopped, use humidity until help arrives.

How to handle blood- streaked mucus

- Gently suction the length of the trach tube.
- Increase use of saline, if indicated.
- Wet the end of the tracheotomy tube with saline or water-based lubricant when changing the tracheotomy tube.
- Increase use of humidity.
- Call your doctor for a check-up.



Aspiration

What is aspiration?

Solids, liquids, or saliva moving into the airway instead of into the esophagus.

Why children aspirate

Some children with tracheotomies eat normally. Others have medical issues that may make it hard to chew and swallow, either before or after a tracheotomy tube is placed, or both. Another small group of children, especially older children, may tend to aspirate. Special therapists and treatments can help children who have trouble with chewing and swallowing.

Signs that your child may be aspirating

- Choking or coughing with swallowing.
- Watery trach secretions, especially after swallowing.
- Drooling or holding saliva and fluids in the mouth.
- The color of the food or liquid that your child is swallowing is coughed from the tracheotomy tube.
- Frequent lung infections.

How to prevent aspiration

- Thicken liquids with artificial thickeners.
- Eat foods like pudding, baby foods, cereals, jello, and yogurt (thicker liquids are usually easier to swallow than thin liquids).
- Chew and swallow slowly.
- Sit upright while eating or drinking.
- Follow your doctor's orders on eating and feeding.
- Give medications as ordered since many medications help with secretions or improve stomach emptying.

How to handle aspiration

- Watch your child eat and drink.
- Suction the tracheotomy tube using saline until the tube is clear of the fluid or food your child was eating.
- Change the tracheotomy tube if it is plugged with fluid or food.
- Call your doctor if your child is showing signs of aspiration – your doctor can arrange tests to check for aspiration.
- Work with swallowing therapists, if indicated.

TIP: Remember, your child can aspirate when vomiting, too.

If your child does vomit, try to keep it out of the tracheotomy tube by turning the child's head to the side and suctioning the trach.



Bronchospasm

What is bronchospasm?

Bronchospasm is a rare event. Usually, it is a reversible tightening of the muscles in the airway, causing narrowing and blockage of the airway. If untreated, it can threaten the life of your child.

Causes of bronchospasm

- An allergic reaction
- Cold or infection
- Exposure to smoke or fumes
- Dust
- Cold air
- Small objects that can enter the airway and cause irritation or swelling of the airway

Signs of bronchospasm

- Coughing
- Wheezing
- Sweaty, clammy skin
- Restlessness
- Feeling of tightness in the chest
- Unable to catch their breath
- Fast, hard breathing where you see sinking of chest, neck, or ribs and/or head bobbing
- Flared nostrils
- Blue or pale gray color around the lips, nails, and skin
- Your child does not wake to your touch or when calling their name

How to prevent bronchospasm

- Avoid those items listed that can cause bronchospasm.
- Talk with your doctor about your child's risk for bronchospasm, and if your child needs medications and treatments to prevent bronchospasm at home.
- If your child is showing signs of early bronchospasm, call for help. Your doctor or life squad can get needed medications to help stop bronchospasm or get your child to a hospital.

How to manage a bronchospasm

1. Call 911.
2. Remain calm.
3. Help your child stay calm.
4. If you have an oxygen supply at home, give your child oxygen as directed.
5. Give medications as prescribed by your doctor.
6. Gently suction the tracheotomy tube. If the tube is open, and suctioning seems to aggravate your child's breathing, stop.
7. If the tracheotomy tube is plugged, and suctioning does not clear the plug, gently change the tracheotomy tube.
8. Begin rescue breathing or CPR if needed.



Transitional Care

Purpose

To make sure you and the second caregiver can safely and comfortably care for your child's tracheotomy without help.

Definition

Both caregivers will care for the child for a 24-hour period before the child goes home. This period is called transitional care.

When it is done

Upon completion of the education checklist, each of the 2 main caregivers will need to complete a 24-hour stay on their own. During this stay, each caregiver will be expected to do all aspects of the child's care without the help of nursing staff or other family members.

At the beginning of the 24-hour stay, your bedside nurse will review the 24-hour tool observation with you. This tool will be used to assess your progress during the 24-hour stay.

- This may be done in two 12-hour blocks but must include one 12-hour overnight.
- If more than 2 caregiving requirements are not met (or 1 life-threatening requirement missed) in a 12-hour stay, the stay will be stopped. It will need to be completed at a different time.



Home Care Tips

Here are some tips for you to consider in your child's care. Feel free to write your own tips and share them with your nursing staff and health care team.

1. If you must suction your child during a meal, do so gently to decrease the chance of vomiting.
2. Your child should not go under water!
 - Watch your child closely at bath time to prevent water from entering the tracheotomy tube.
 - Wear an artificial nose on the tracheotomy tube to prevent splashed water from entering the tube.
 - Children with tracheotomies should not swim.
3. When washing your child's hair, carefully pour water over the hair with a cup as your child is laying back with their head and neck supported.
4. Do not use powders or aerosol sprays around your child.
5. Avoid contact sports.
6. Avoid hairy or fuzzy clothing around the tracheotomy tube. Do not use clothing that blocks the tracheotomy tube (for example, turtleneck shirts).
7. When choosing a pet, consider one that can live outside or that will not shed.
8. **DO NOT SMOKE AROUND YOUR CHILD.** Smoke is very irritating to your child's airway, lungs, and ears.



Add your tips here:



Speech and Language Development

Typical Development

Newborn – 12 months: The child is listening to you and understanding the words you say. They are practicing speaking by cooing and babbling.

12 months: The child may say a word or a few words.

12 – 18 months: The child is increasing the number of words they can say. They may have two-word phrases like “more juice”.

18 months – 2 years: The child is more verbal and speaks with three-to-five-word sentences.

3 years – 4 years: The child is perfecting their language. They should be understood by a stranger and able to tell a story that happened to them in the recent past.

Effects of a Tracheotomy on Communication

Having a tracheotomy may have an impact on your child’s ability to talk. Some of those reasons might be:

1. If the laryngotracheal space is very small or scarred, your child will not be able to pass enough air up through the vocal cords to make sounds.
2. If the vocal cords are scarred, the sound from the cords may be hoarse or raspy. If one or both vocal cords cannot move, your child’s sounds will vary based on the position of the vocal cords.
3. Often, children with tracheotomies have other problems. If your child was born early, they may have problems with language. If your child has a history of head trauma or injury to the spine, there may be a neurologically based reason for your child’s trouble with communication.
4. The size of the tracheotomy tube needed to keep your child’s airway safe may decrease the amount of air that can pass up through the vocal cords to make speech.

It is important to remember that the removal of your child’s tracheotomy tube may not be the answer for your child’s problem with talking.



Speech and Language Development

A qualified speech therapist may test your child in these areas:

Elements of communication

- Receptive language: This is the understanding of the spoken, written, or signed word.
- Expressive language: This is the telling of thoughts through speech, writing, or signing. It is the thinking process of putting words together and knowing words.
- Speech or articulation: This is the sound used to make language.
- Voice: This is the quality of the sound made by the vocal cords
- Fluency: This is the rhythm of speech, how it flows.

What if my child can't talk?

Having mild to severe problems with talking does not mean being unable to communicate. Giving your child a solid language base is very important. There are many options that can help your child to communicate:

1. Sign language: Sign language is not only for children who cannot hear. If your child does not have the voice to communicate their needs well, then they can sign their needs and thoughts.
2. Artificial Larynx: This device is usually for older children who have some experience with verbal communication. The device helps the sound made by the child get up into the mouth as the child mouths out the words.
3. Augmentative Communication Device: This device is more like a computer. The child selects the word on the board, and the computerized voice says the word selected by the child.
4. Picture Communication Device: This can be made for the child with different pictures or personal objects. By pointing to the object, the child relays their needs or thoughts. The child can help in the making of their personal picture board.
5. Speaking Valve: This valve is placed on the tracheotomy tube. It lets the child inhale through the valve and upon exhaling, the valve closes allowing air to pass through the vocal cords. **IT IS NOT FOR ALL CHILDREN WITH TRACHEOTOMIES.** It does not work well for children who continue to have stenosis above the tracheotomy. It is only used with your ENT doctor's permission. Check with your ENT doctor to see if this valve is an option for your child.



Speech and Language Development

Public Law 94-142 states that all children have the right to free, suitable public education. This law is very important for children with disabilities. Children with tracheotomies can receive special education services through this law. This law provides for the education of your child in the "least restrictive environment". This means your child should attend regular classes whenever possible. It also means that your child has the right to any services they need to attend regular classes.

Educators, health personnel, parents and, when appropriate, the child, meet yearly to develop the educational goals and a medical plan of care. These plans should meet the individual needs of your child's health and education.

Someone at the school must be trained in the care of your child's tracheotomy. Most state's Board of Nursing recommend that an RN or LPN, be involved in your child's care, either directly at the school site or through education and delegation of that care to a health aide, as well as special transportation to and from school. Working with your child's school and health personnel can assure they will be safe at school. Remember, the emergency trach bag must be with your child at all times.

If you need help enrolling your child in school, contact your school system, your nurse, doctor, or child advocacy group.

