



# Health Facts for You



Caring for your child's  
tracheostomy



This guidebook is to help you learn more about your taking care of your child's tracheostomy.

## Tracheostomy (Trach) Care

You need to keep the skin around your child's trach clean and dry. You need to do trach care at least 2 times a day and more often if the trach dressing gets wet. This will help keep the skin healthy. A wet dressing or trach ties can lead to skin irritation and breakdown.

## Trach Care Supplies

- Same size trach tube with lubricant
- ½-size smaller trach tube with lubricant
- Sterile water
- Washcloths (2 wet and 1 dry)
- Trach ties
- 8 Q-tips (4 wet and 4 dry)
- Dressing
- Suction catheters
- Suction machine

## Steps for Trach Care

- 1** Wash hands or use hand sanitizer and put on clean gloves.
- 2 Gather and organize equipment and supplies. Open packages as needed.
- 3 Put 4 Q-tips in a package. Add enough sterile water to moisten the Q-tips.
- 4 Suction your child if needed. Put a rolled blanket under your child's shoulders, if needed.
- 5 Remove soiled dressing. Look at your child's trach for any changes in the skin.
- 6 Clean around the trach using the wet Q-tips. Use one Q-tip to clean a quarter of the trach at a time.
- 7 Dry around the trach with 4 dry Q-tips. Use one Q-tip to dry a quarter of the trach at a time.
- 8 One person should remove the trach ties while another person holds the trach tube in place while the ties are off. Wash your child's neck with a wet washcloth with soap. Rinse soap and then dry the skin.
- 9 Place a dressing under the flanges. Fasten the Velcro trach ties. You should be able to slide one finger between your child's neck and their trach ties.
- 10 Wash dirty trach ties with mild soap and water. Rinse well. Leave out to dry. Throw away soiled supplies. Remove gloves and wash hands.

## Tips for Trach Care

Be sure that someone is holding your child's trach in place **at all times** when trach ties are not secured.

Use an old set of trach ties to measure the length of your child's new ties.

A blanket roll under your child's shoulders to give you more space between the chin and neck.

Trach ties will need to be cleaned and reused for a few days at a time. Throw them away if there is any fraying or when Velcro is no longer sticky.

You can use a Q-tip if it is hard for you to slide the clean split gauze under the trach tube.

Trach ties that are too tight can cause skin breakdown. Trach ties that are too loose can cause your child's trach tube to come out.

## Checking Your Child's Skin

Always look at your child's skin while cleaning the trach and neck. The edge of the trach should be smooth. Look for:

- redness or rashes,
- other signs of infection,
- skin breakdown, or
- granulation tissue.

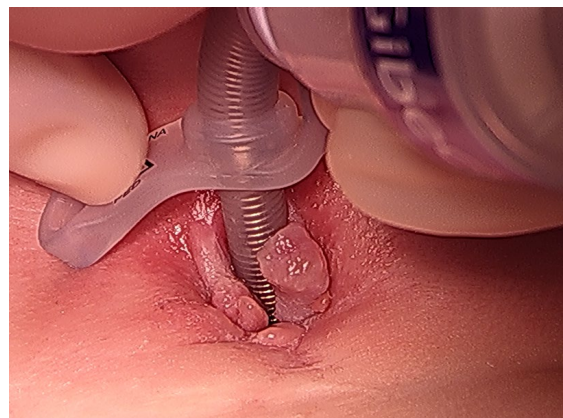
**Redness** or a rash can be signs of irritation or infection. An infection could be from bacteria or yeast.

- Be sure to keep your child's skin clean and dry.
- Call your pulmonary (lung) doctor if the redness or rash does not clear up in a couple of days or if it gets worse. Your doctor will want to look at it to decide how to treat it.

Never use ointment around your child's trach unless it has been ordered by your doctor.

**Granulation tissue** (see picture below) or a granuloma is scar tissue. It can grow around the stoma.

- It is pink and moist.
- It has an uneven shape.
- It does not have any feeling but can bleed if it is irritated.
- If it becomes too large it can block the trach stoma.
- Call your pulmonary doctor if the size of the granulation tissue concerns you. There are a couple of different ways your doctor may choose to treat it.



## Changing Your Child's Trach Tube

Children with trachs must have their trach tubes changed at least once a week. This prevents mucus from building up on the inside of the tube. You might also need to change your child's trach tube right away if mucus plugs the tube and you are not able to clear it with suctioning. If your child's trach tube comes out, you need to replace it as quickly as you can.

Anyone who is left alone with your child needs to be able to change the trach tube. For routine trach tube changes, you need to have 2 trained people present during the change since one person needs to hold the trach while the ties are off.

**Do not give your child anything to eat or drink for at least 1 hour before changing the tube.** This lessens the chance of your child throwing up.

### Supplies

- Same size clean trach tube
- ½ size smaller clean trach
- Velcro trach ties
- Trach dressing
- Lubricant (water soluble)
- Resuscitation bag and mask
- Suction machine
- Suction catheters
- If using a cuffed trach:
  - Sterile water (if cuff is inflated with sterile water)
  - Sterile container
  - \_\_\_\_\_ mL syringe

### Steps for Changing the Trach Tube

- 1 Wash hands or use hand sanitizer. Suction your child if needed. Put a rolled blanket under your child's shoulders, if needed.
- 2 **Cuffed trach only:** Pour sterile water in a clean container. Inflate cuff with 5 mL of air. Place cuff in the sterile water to check for leaks. Remove air from cuff. Put obturator in the trach tube.
- 3 Apply lubricant on the outside of the trach tube. Attach trach ties to the tube. Be careful that the tube does not touch anything.
- 4 **Cuffed trach only:** Deflate the cuff.
- 5 Remove anything covering the tracheostomy, such as the trach collar, HME or ventilator circuit.
- 6 Perform trach cares (steps 5-8 as noted on page 1). One person should remove the trach ties as another person holds the trach tube in place.
- 7 Remove the trach tube using an up and outward, curved motion. Now replace with a new trach tube using a down and inward, curved motion. Do not force the tube.
- 8 Remove the obturator right away once the tube is in place or your child will not be able to breathe.
- 9 Place a dressing under the flanges. Fasten the Velcro trach ties. You should be able to slide one finger between your child's neck and their trach ties.
- 10 **Cuffed trach only:** Inflate the cuff with air or sterile water as directed.
- 11 Replace trach collar or ventilator circuit. Check your child's breathing. Make sure they are breathing comfortably through their new trach tube.
- 12 Clean removed trach tube. See next page for steps on how to do this.

## Tips When Changing the Trach Tube

Keep the resuscitation bag in reach in case of an emergency.

All people who care for your child should do a routine trach tube change at least once every 6 months.

Lubricant makes it easier to slide your child's trach tube back into place. **Do not use** Vaseline or other non-water soluble ointments as a lubricant.

**Cuffed trach only:** Check for air leaks before replacing trach tube. You can do this by placing an air inflated cuffed trach in sterile water. You will notice little air bubbles in the water coming from the trach tube. Do not use it if there is a leak.

Swaddling your child with a blanket can help keep hands out of the way.

A blanket roll under your child's shoulders helps tilt the head so you have better access to your child's neck.

## Cleaning Trach Tubes

The supplies and steps for cleaning your child's trach depends on the brand of trach.

### Tips for Cleaning Trach Tubes

Do not store your trach tube with the obturator inside of the tube.

If you do not have a clean dry container, a Zip-lock<sup>®</sup> bag works too.

If you notice water droplets inside your storage container, the tube was not completely dry. This moisture can allow bacteria to grow. You will need to clean, disinfect, and dry the tube again.

Do **not** throw away a tube if you do not have a new one to replace it.

Order new trach tubes as often as you are able. Usually, one new tube per month is covered by insurance.

## Shiley Trach Tube

A Shiley trach tube is a brand of trach tube. It is made of polyvinyl chloride (PVC) plastic. It softens and becomes more flexible at body temperature. You can find the size of your child's trach, inner diameter and outer diameter located on the flange.



## How to Clean a Shiley Trach Tube

A Shiley uncuffed trach tube is reusable after cleaning and disinfecting. It is considered dirty once the cannula has been touched by a non-clean surface or object, like a table or hand. Each Shiley trach tube can be cleaned and reused until discolored.

### Supplies

- Container for cleaning
- Mild, no fragrance soap
- Tap water
- Obturator
- Pipe cleaner/trach tube brush
- White vinegar
- Sterile water
- Container for disinfecting
- Clean gauze pad
- Storage container

### Steps for Cleaning a Shiley Trach Tube

- 1 Clean mucous off the trach tube using warm soapy tap water. Clean the inside of the tube with a pipe cleaner or trach tube brush.
- 2 Look at the trach tube. Make sure all mucus is cleaned off of the tube. Check if there are any cracks or changes to the color of the trach tube. If there is any damage to the trach tube, throw it away.
- 3 Rinse tube with sterile water.
- 4 Disinfect the trach tube and obturator by soaking in a mixture of 1 part vinegar to 2 parts sterile water for 20-30 minutes.
- 5 Rinse vinegar off of trach tube and obturator with sterile water. Do not touch the cannula of the trach tube or shaft of the obturator.
- 6 Put trach tube and obturator on a clean gauze pad to air dry for 24 hours. Store in clean dry container.

## Bivona Trach Tube

This brand is made of silicone to make them soft and flexible. It has a wire inside the cannula to prevent any kinks. You can find the size of your child's trach, inner diameter and outer diameter, located on the flange.



## Bivona Flextend Trach Tube

This is a type of Bivona trach tube. It has an adapter to keep your child's trach tube away from their neck and chin. This may be helpful if you are having trouble keeping a ventilator attached to the trach or if your child's neck rubs on their ventilator connection. It also may be useful if your child's chin or neck tissue blocks the trach opening. Some children find it more comfortable while in tummy time or lying face down.



## How to Clean a Bivona or Bivona Flextend Trach Tube

These trach tubes are reusable. Trach tubes are considered dirty once the cannula has touched a non-clean surface or object, like a table or hand.

Each Bivona and Bivona Flextend tube can be re-used and cleaned 5 times. Keep track of the number of times it's been cleaned by making a mark on the flange with a fine tip Sharpie marker after each cleaning. After using/cleaning 5 times, throw the tube away (if you have a new one to replace it).

## Supplies

- Container for cleaning
- Mild, no fragrance soap
- Tap water
- Obturator
- Pipe cleaner/trach tube brush
- Sterile water
- Small pot or pan for boiling water
- Clean gauze pad
- Fine tip Sharpie marker
- Storage container

## Steps to Clean a Bivona or Bivona Flextend Trach Tube

- 1 Clean mucous off the trach tube using warm soapy tap water. Clean the inside of the tube with a pipe cleaner or trach tube brush.
- 2 Look at the trach tube. Make sure all mucus is cleaned off of the tube. Check for cracks or changes to the color of the trach tube. If there is any damage to the trach tube, throw it away.
- 3 Rinse tube with sterile water.
- 4 Bring tap water to a boil in a pot or pan on the stove. Remove the pan from heat once water is at a rolling boil
- 5 Place separated trach tube and obturator in the pan of hot water. Allow pan of water to cool.
- 6 Remove the trach tube and obturator from water. Do not touch the cannula of the trach or shaft of the obturator.
- 7 Put trach tube and obturator on a clean gauze pad to air dry for 24 hours. Mark the flange as noted above. Store in clean dry container.



## Humidification

Everyone needs humidification in the air they breathe. People without trachs breathe through their mouth and nose which warms, humidifies, and filters their air. Having a trach tube means air does not go through the mouth or nose. The air that is breathed has no way of being warmed or humidified. The humidity must be given by a different device, which thins your child's secretions and makes it easier to cough. If your child does not have humidification, there is a risk for thick secretions and mucus plugs.

Your child will use a heated humidification system. This system uses an air compressor to turn sterile water into a fine mist. The mist passes over a heat plate warming it before it passes to your child's trach tube. Your pulmonary team will decide the heater temperature setting.



A heated humidifier gives your child the most humidification. A heated humidifier is not portable and must be plugged into electricity to work.

A heated humidifier cannot be used while traveling in a car or outside. The pulmonary team will work with you to create a plan for

traveling with your child, using a heat moisture exchanger (HME) filter, saline nebulizer, or drops.

## Heat Moisture Exchanger

A heat moisture exchanger (HME) is a device with a sponge-like filter on the end. You may hear it called an artificial nose.



An HME is used when your child is not using the heated humidification system. An HME attaches to the end of your child's trach tube. It traps heat and moisture as your child exhales air from their lungs in the filter. When your child inhales, the air passes through the HME and becomes warm and moist.

If your child has a ventilator, the HME attaches between the end of your child's tracheostomy tube and the ventilator circuit.



As your child becomes more mobile you may choose to use an HME to allow more movement and play. You may use an HME when you are traveling and are unable to plug in your heated humidification.

Your child's pulmonary team will work with you to decide when your child is ready to start using an HME. Your child will start with short trials. The time is slowly increased.

Pay attention to your child's breathing and secretions during and after the HME trial. If your child has more trouble breathing or thick secretions during or after their trial, it may not be time to increase the length of time of the trial.

Your child's pulmonary team will also work with you to set a goal for length of time your child spends on the HME.

### Tips for Using an HME

Do not get your child's HME damp or wet.

Be careful to keep your child's HME free of secretions.

Change your child's HME every other day, or sooner, if it becomes wet or blocked with secretions.

You may need to do a saline nebulizer or add a few saline drops to the trach tube to thin secretions while using an HME.

**Your child should NOT use an artificial nose or HME with a heated/cool mist or a nebulizer treatment (normal saline or medicine) at the same time.** The filter will become saturated with water vapor and will increase the work of breathing.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 1/2022 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8233.