

# Family Education Sheet

## Tracheostomy Tube: Using Humidification at Home



Boston Children's Hospital

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People's noses and mouths are warm and moist to help filter and humidify the air they breathe. This natural process does not happen with a tracheostomy (trach) tube. People with a trach tube need to add humidification to keep their airway from drying out. This helps to thin out secretions (mucus).

- Your child must have either a trach collar or Heat Moisture Exchanger (HME) for humidification to be used.
- **Do not use an HME when your child is:**
  - Alone
  - Sleeping
- You should use a trach collar mist overnight while your child is sleeping.

### What supplies do I need to put my child on humidification?

- The right size tracheostomy collar (pediatric or adult)
- Corrugated tubing (of a length that will work best for you and your child)
- Condensation drainage bag
- Large volume nebulizer
- Distilled or sterile water
- Air compressor unit (please know that air compressors are very loud)
- Oxygen (if your doctor tells you it is needed)

### Humidification using a large volume nebulizer trach collar



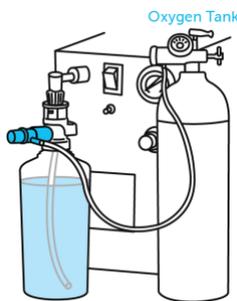
- 1 Fill the large volume nebulizer with distilled or sterile water.



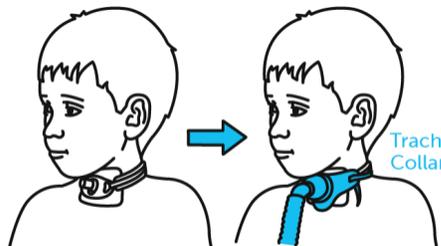
- 2 Screw the nebulizer cap onto the air compressor.



- 3 Set the nebulizer to 70% or the setting recommended by your child's respiratory therapist. Set the PSI pressure on the air compressor to 20 or the setting recommended by your child's doctor. This controls the level of mist.



- 4 If oxygen is needed, attach tubing from oxygen source (like a concentrator or a tank) to the connector. Set the flow rate according to the prescribed level of oxygen saturation by the oximeter.



- 5 Put the tracheostomy collar on your child.

## Important tips

When giving humidification and general trach care, it's important to:

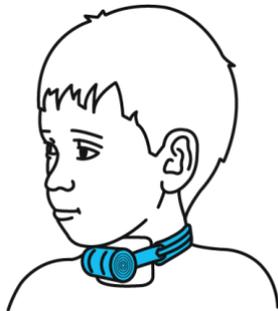
- Know your child's usual breathing rate (breaths per 1 minute) while your child is asleep and awake.
- Know your child's pulse rate and oxygen saturation as it reads on the oximeter. **Call your doctor if either number is out of the normal range.**
- You can use a small volume nebulizer with normal saline for additional humidification when you are not at home with your usual mist setup. Please note: You need a power source for gas flow.

## When should I call my child's doctor?

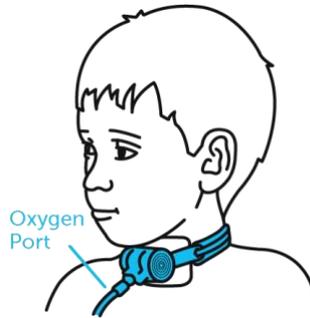
Call your child's primary care doctor or respiratory/airway care provider if your child has:

- Increased oxygen need for either trach mist or HME
- **If your child needs emergency attention, call 911 right away.**
- For questions about equipment, call your Durable Medical Equipment (DME) company.

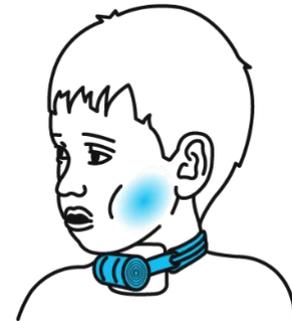
## Humidification using HME (when your child is awake and you are watching him or her)



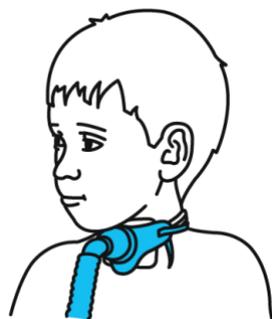
1 Put on the HME.



2 Use an HME with an oxygen attachment if oxygen is needed. Connect the port through oxygen tubing to your oxygen source (like a concentrator or a tank). Adjust the flow according to your child's oxygen requirement based on prescribed oxygen saturation by oximeter.



3 Check the HME regularly to make sure there are no secretions. Replace the HME if there is a buildup of secretions. Watch for changes in your child's breathing after you put on the HME. If your child is breathing faster than normal, take the HME off.



4 You may want to have the HME on for a shorter time if your child's secretions get thicker. You may want to stop using the HME if there are a lot of secretions and use the trach collar mist instead.

5 Change the HME:

- Every 24 hours
- When it gets dirty